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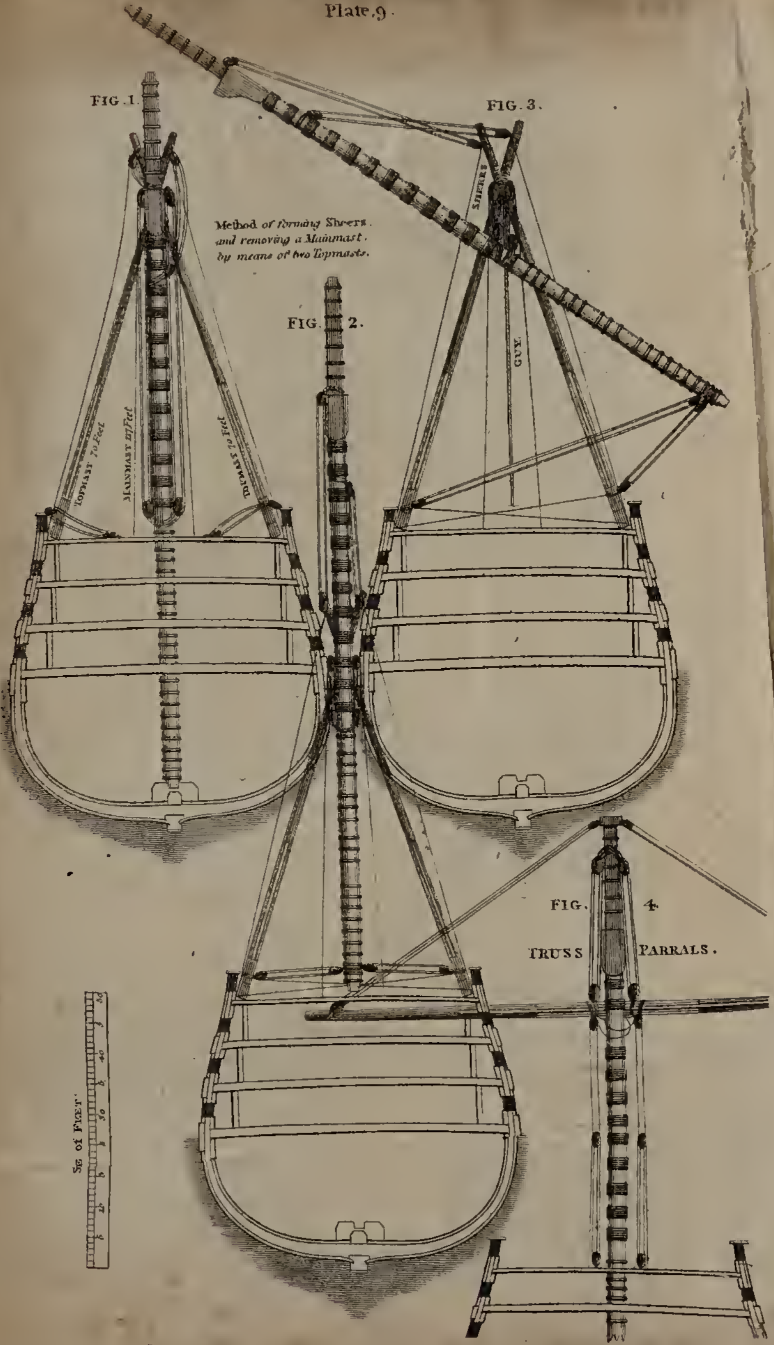

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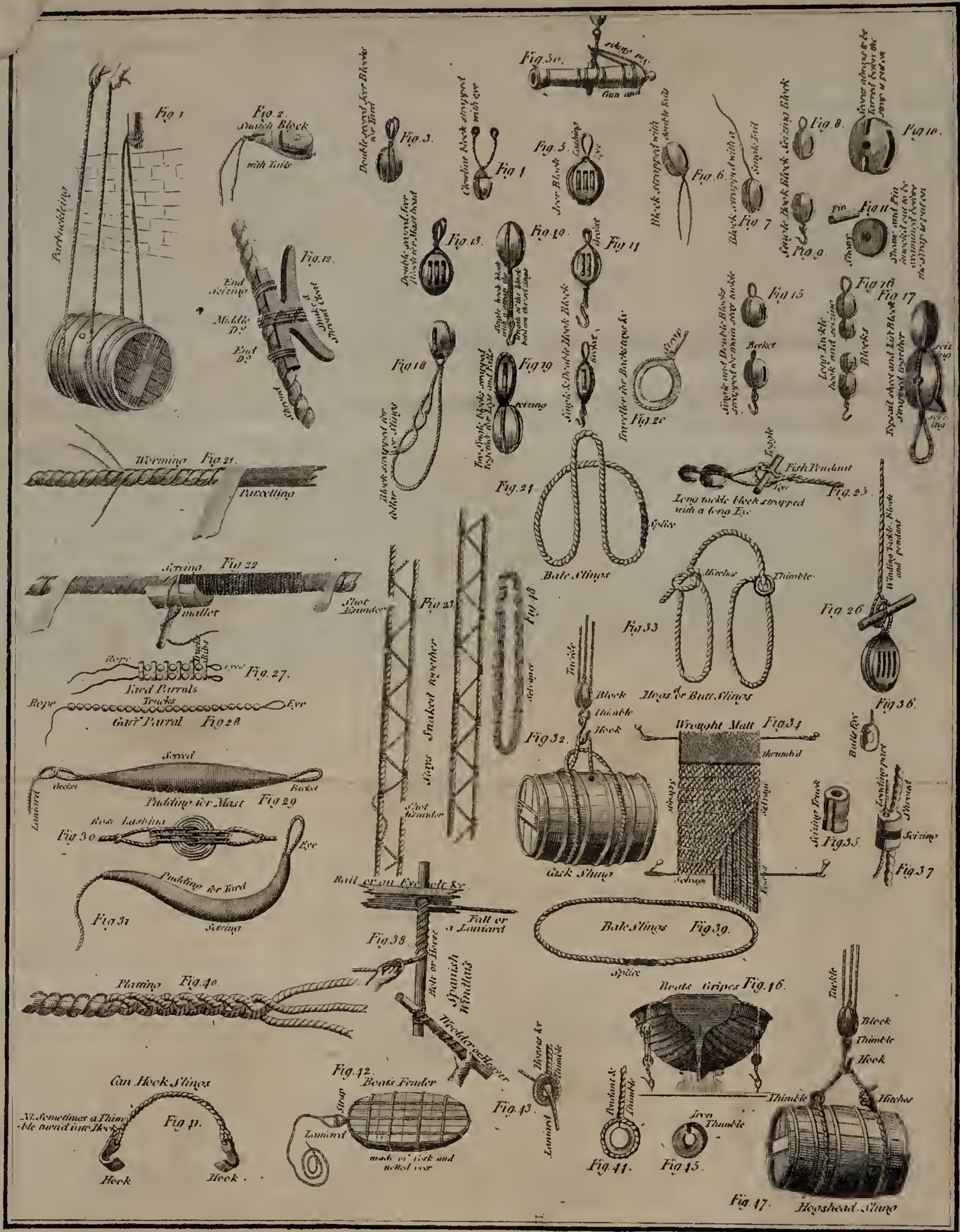

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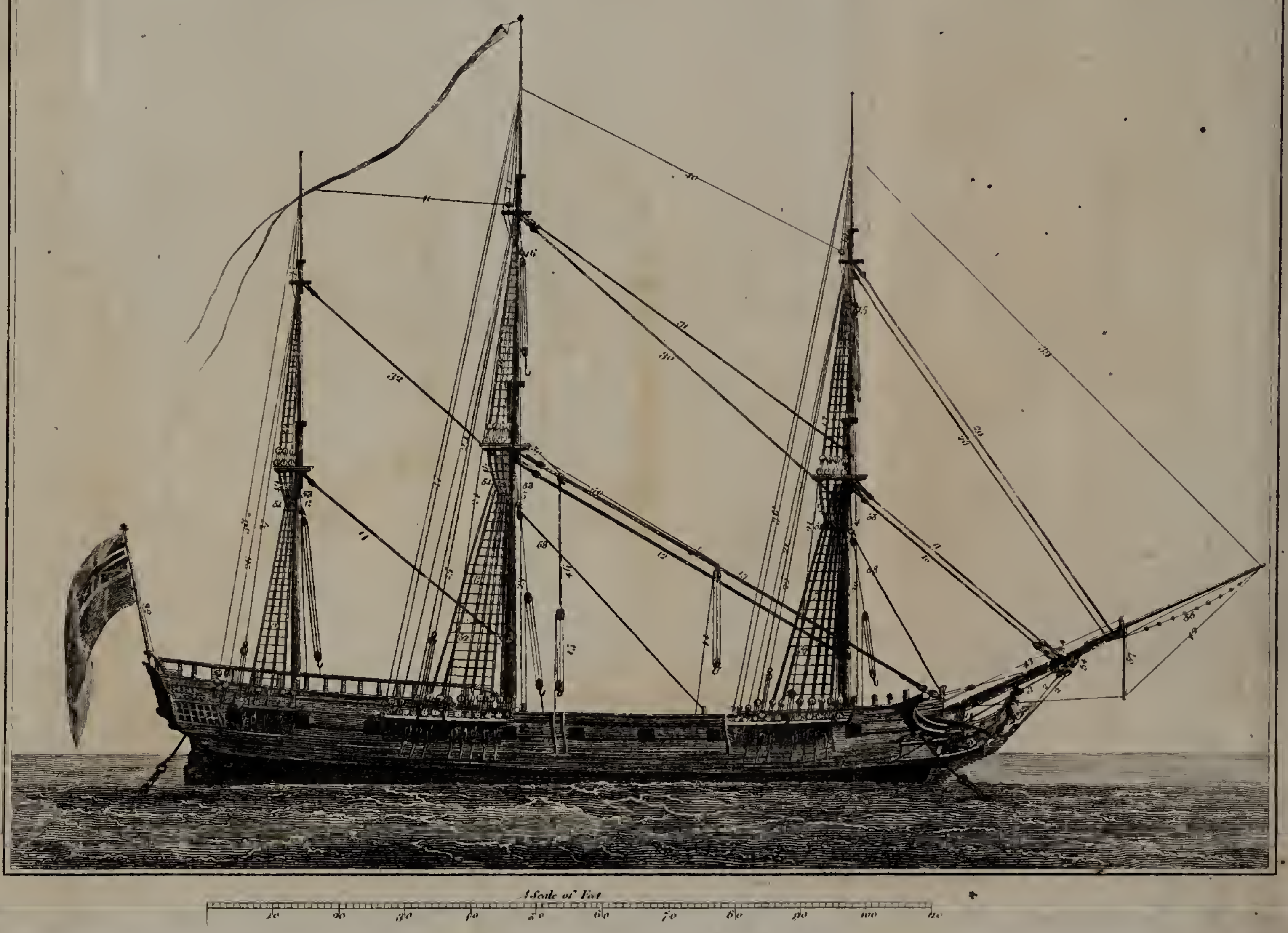
The STANDING RIGGING of a TWENTY GUN SHIP.

Plate, 5.



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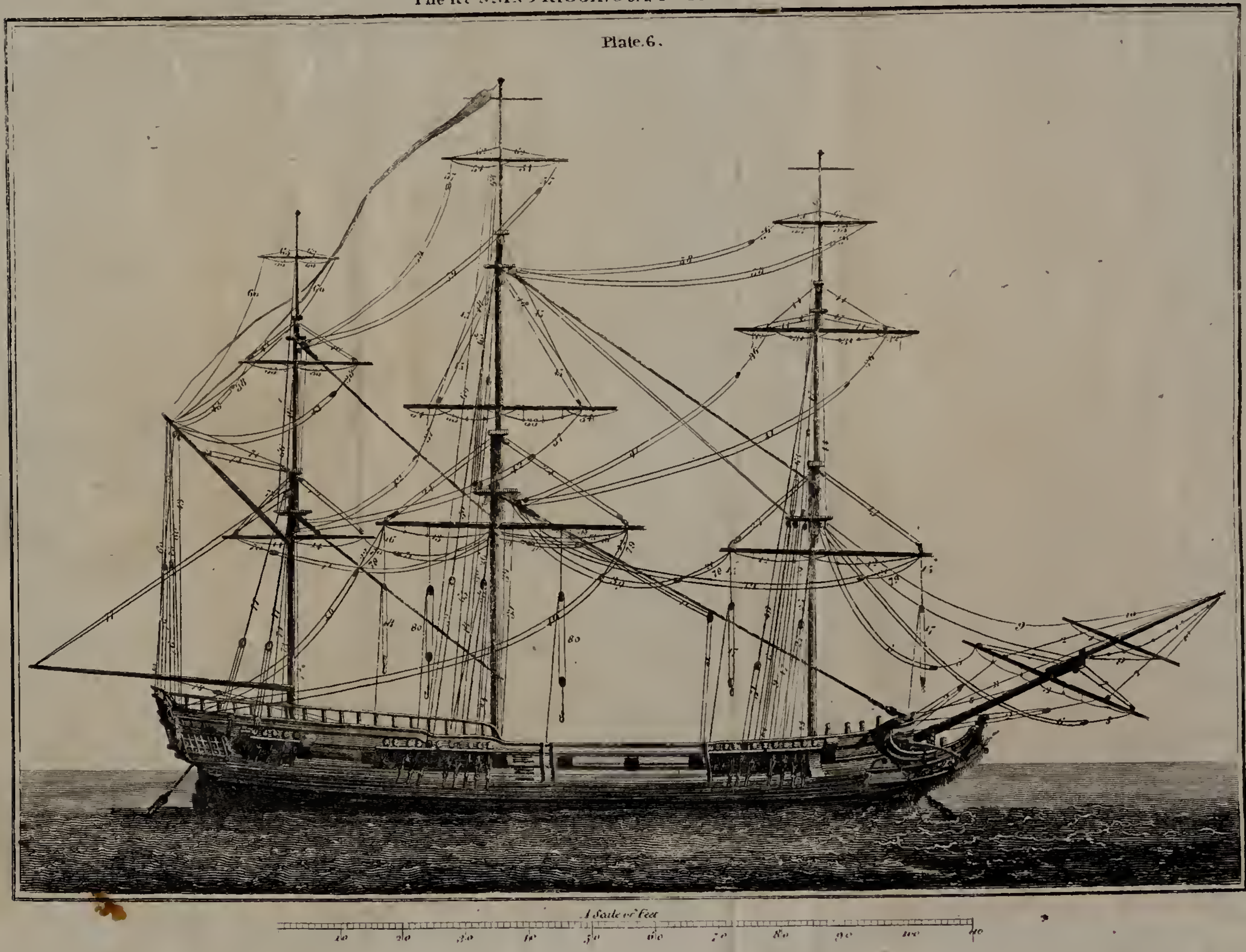

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THE

ART OF RIGGING:

CONTAINING AN

ALPHABETICAL EXPLANATION OF THE TERMS,

DIRECTIONS FOR THE MOST MINUTE OPERATIONS,

AND THE METHOD OF

PROGRESSIVE RIGGING:

With full and correct Tables of the Dimensions and Quantities of every Part of the Rigging of all Ships and Vessels.

PARTICULARLY USEFUL TO BOATSWAINS.

ILLUSTRATED WITH NUMEROUS ENGRAVINGS.

THE SECOND EDITION:
Considerably enlarged and improved; with ADDITIONAL TABLES, expressly adapted for MERCHANT-SHIPPING.

LONDON:
PRINTED FOR P. MASON, AT STEEL'S NAVIGATION-WAREHOUSE,
UNION-ROW, LITTLE TOWER-HILL.

1806.

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PREFACE.

THE following Treatise on Rigging is part of a larger work, intitled "*The Elements and Practice of Rigging, Seamanship, and Naval Tactics.*"

The reputation of that work, and the utility of its sections, have induced the proprietor to publish it in separate treatises. In pursuance of that design there have been published, "*The Art of Mast, Block, and Oar, making,*" price 18*s*. "*The Art of Sailmaking,*" price 9*s*. "*Scamanship, both in Theory and Practice,*" price 7*s*. 6*d*. and "*A System of Naval Tactics,*" price 7*s*. 6*d*. In addition to these, we now beg leave to present, to those who pursue and to those who encourage the naval arts, this enlarged and improved edition of the "*Art of Rigging.*"

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RIGGING.

THE very numerous articles and operations which belong to the rigging of a ſhip render it ſomewhat difficult to arrange this ſubject. The progreſſive connection of the whole ſhould be ſhewn, and yet it ſhould be ſo diſpoſed as to be of eaſy reference for any particular. To unite theſe two objects has been our care; and, with that view, we have divided the art of rigging ſhips into five parts.

The firſt part contains an alphabetical explanation of the terms and phraſes uſed in rigging:

The ſecond conſiſts of directions for the performance of operations incidental to rigging, and for preparing it on ſhore:

The third explains the progreſſive method of rigging ſhips:

The fourth contains a deſcription of operations and particulars performed while fitting the ſhip in harbour, or when at ſea: And

The fifth deſcribes the progreſſive method of rigging brigs and ſmaller veſſels.

RIGGING. — PART I.

EXPLANATION OF THE TERMS USED IN RIGGING.

ANCHOR-STOCK TACKLE. A tackle uſed to cant the anchor-ſtock into its place. See TACKLE.

ARM-GASKET. See GASKETS.

ARM-CLEAT. See CLEATS.

AWNING. A canvas-covering expanded over the decks of a ſhip, to ſcreen the crew from, and prevent the decks ſplitting by, the heat of the ſun.

BACK-STAYS. See STAYS.

BAG-REEF. See REEF.

BALANCE-REEF. See Reef.

BECKETS. Large iron hooks, or ſhort ropes, uſed in ſeveral parts of a ſhip to confine large ropes, &c. or to hang up the weather-ſheets and lee-tacks of the main and fore ſail to the foremoſt main and fore ſhrouds. The nooſe made at the breaſt of a block, to make faſt the ſtanding part of a fall-to, is alſo called a becket. Pl. 3, fig. 15.

BELAYING. Faſtening a rope, by giving it ſeveral croſs turns alternately round two timber-heads, each end of a cleat, pin, &c. Pl. 1, fig. 31.

BELAYING-CLEAT. See Cleats.

BELAYING-PINS. See Pins.

BELL-ROPE. See Ropes.

BENDING. Faſtening one rope to another, or to different objects, and faſtening a ſail to its yard. The different ſorts of bends are explained under the word Bends, Part II.

BENDS. The ſmall ropes uſed to confine the clinch of a cable. Pl. 4, fig. 3.

BENTINCK-SHROUDS. See Shrouds.

BIGHT. The nooſe, or doubled part, of a rope when folded.

BILL-PENDENT. See Pendent.

BITTS. A frame compoſed of two upright pieces of timber, called the pins, and a croſs piece faſtened horizontally near the head of them: they are uſed to belay cables and ropes to. Bowline and Brace Bitts are ſituated near the maſts; the Fore-jear and Topsail-sheet Bitts are ſituated on the forecaſtle and round the fore-maſt; the Main-jear and Topsail-sheet Bitts tenon into the foremoſt beam of the quarter-deck; the Riding-bitts are the largeſt bitts in a ſhip, and thoſe to which the cable is bitted when the veſſel rides at anchor. Pl. 4, fig. 1.

BITT-STOPPER. See Stopper.

BLOCKS. Machines uſed in ſhips, &c. to increaſe the mechanical power of ropes. Pl. 3, fig. 2 to 19.

BLOCK-AND-BLOCK. The ſituation of a tackle when the effect is deſtroyed by the blocks meeting together.

BOARDING-NETTING. See Netting.

BOATSKIDS. Long ſquare pieces of fir, extending acroſs the ſhip from the gang-boards, and on which the boats, ſpare maſts, &c. are ſtowed.

BOBSTAY. See Stay.

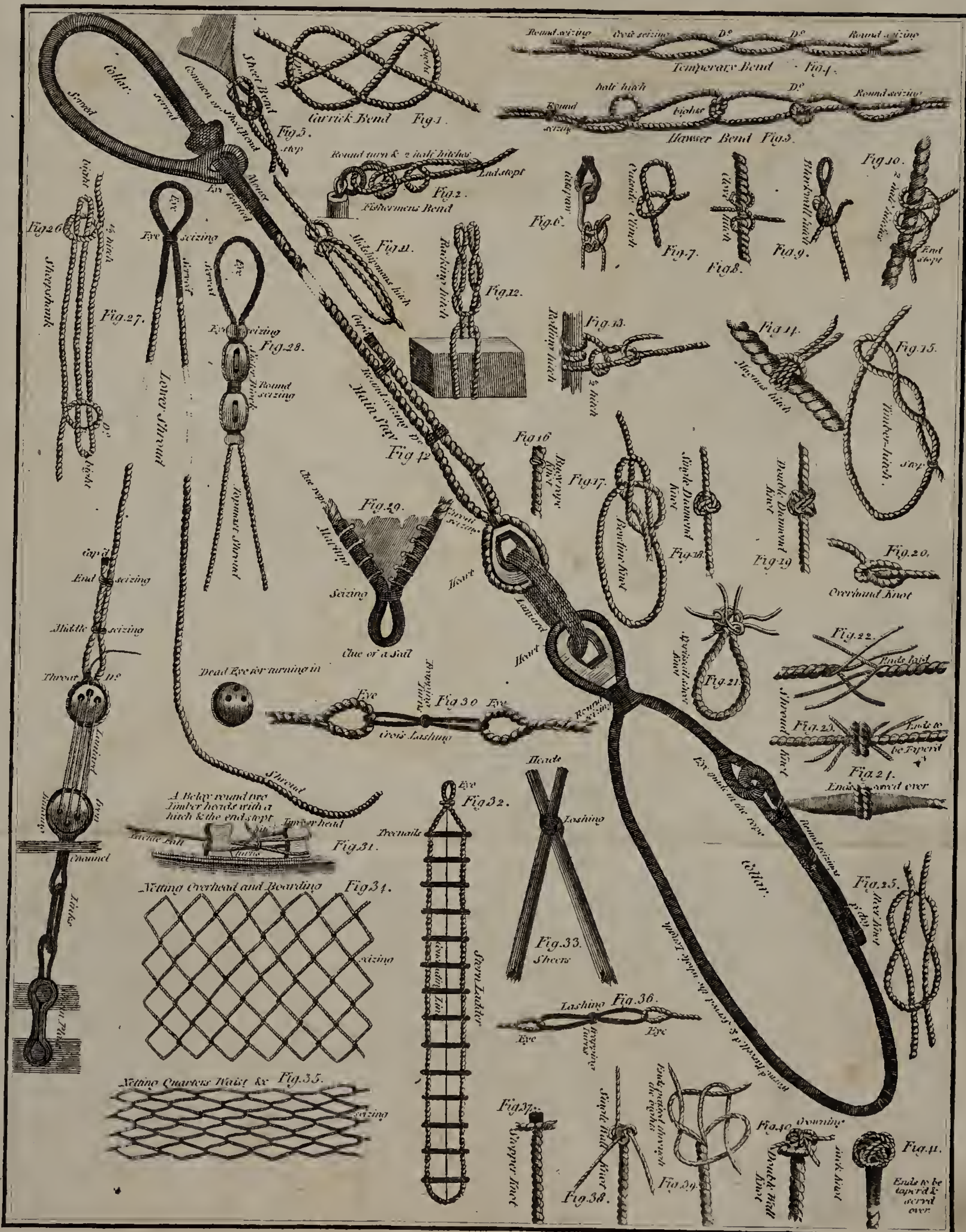
BOLSTERS. Bags filled with rope-yarn, or ſhakings, which are placed under the ſhrouds and ſtays to prevent their chafing againſt the treſtle-trees.

BOLT-ROPE. The rope ſewed to the edges of ſails.

BOOMS. Long poles run out from the extremities of the yards, bowſprits, and ſides of the maſts, to extend the feet of particular ſails. The Driver-boom, on which the foot of the driver, or ſpanker, is extended,

is

Plate 1.



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is attached to the mizen-maſt, and the outer end hangs over the ſtern. The Jib-boom is run out from the outer end of the bowſprit, and extends the foot of the jib. The Main-boom, uſed in veſſels of one or two maſts, is ſimilar to the driver-boom of a ſhip, and on this is ſpread the foot of the main-ſail. The Ringtail-boom is a ſmall boom projecting from the ſtern of ſome veſſels to ſpread the foot of the ringtail-ſail; and alſo a ſmall boom, laſhed occaſionally to the outer end of the mainſail-boom, to ſpread the foot of the ringtail-ſail when hoiſted at the after-leech of fore-and-aft main-ſails. The Square-sail-boom is laſhed acroſs the deck of veſſels with one maſt, to ſpread the foot of the ſquare-ſail. Studding-sail-booms, to ſpread the ſtudding-ſails, ſlide through boom-irons at the extremities of the yards and from the veſſel's ſides.

BOOM-IRONS. Two flat iron rings formed into one piece, one above the other; employed to connect the booms to the yards, &c. the lower ring is the largeſt, and is driven on the yard: ſome boom-irons faſten on the yards with a cretch or ſtrap, ſecured by nails and hoops. Pl. 2, fig. 20.

BOOM-TACKLE. The tackle uſed to get the ſtudding-ſail-booms in or out. See Tackle.

BOWSING. Hauling or pulling upon a rope or fall of a tackle to remove a body or increaſe the tenſion.

BOWLINE. See Lines.

BOWLINE-BITTS. See Bitts.

BOWLINE-TACKLE. The tackle uſed to bowſe up the main bowline when the ſhip is upon a wind. See Tackle.

BOWSPRIT. The large boom or maſt which projects over the ſtem.

BOW-SPRIT-HORSES. See Horses.

BOWSPRIT-NETTING. See Netting.

BOWSPRIT-SHROUDS. See Shrouds.

BRACE. A rope to turn the yards and ſails horizontally about the maſts and ſhift them when neceſſary. Preventer-brace. A rope, uſed in ſhips of war, to ſupply the place of a brace, ſhould that be ſhot away or damaged. They are led the contrary way, to be leſs liable to detriment at the ſame time. Pl. 2, fig. 20.

BRACE-BITTS. See Bitts.

BRACE-PENDENTS. See Pendent.

BRAILS. Ropes paſſing through blocks on the gaff, and faſtened to the after-leech of fore-and-aft main-ſails, to truſs or brace them up. Similar alſo are the brails of ſtay-ſails. Pl. 2, fig. 23.

BREAST-ROPE. See Rope.

BREAST-WORK. The rails and ſtantions on the foremoſt end of the quarter-deck and poop.

BREAST-WORK NETTING. See Netting.

BRIDLES. Short ropes, or legs, which faſten the bowlines to the cringles on the leeches of ſails.

BULL's EYE. Similar to a thimble, only made of wood inſtead of iron. Pl. 3, fig. 36.

BUMKINS OR BOOMKINS. Short booms projecting from each ſide of the bow to haul down the fore-tack.

BUMKIN-SHROUDS. See Shrouds.

BUNT-GASKET. See Gasket.

BUNT-LINES. See Lines.

BURTONS. Pl. 5, fig. 6, 15, 16. See Burton-Tackles.

BUOY-ROPE. See Rope.

BURTON-PENDENTS. See Pendents.

BURTON-TACKLES. Tackles uſed to ſet up the ſhrouds, ſupport the topſail-yards, &c. See Tackle.

BUTTON AND LOOP. A ſhort piece of rope, having at one end a walnut-knot, crowned, and at the other end an eye. It is uſed as a becket to confine ropes in.

BUTTONS. Small pieces of thick leather under the heads of nails that are driven through ropes.

CABLET. Any cable-laid rope under nine inches in circumference.

CAPS. Short thick blocks of wood, with two holes in them, uſed to confine the maſts together.

To CAP a rope. To cover the end with tarred canvas, which is whipt with twine or ſpunyarn. Pl. 1, fig. 42.

CAPSTAN OR CAPSTERN. A machine for heaving up anchors or other great ſtrains.

CAST-OFF. To looſe a rope, by unſeiſing it, or by cutting the laſhing.

CATHARPINS. Short ropes to keep the lower ſhrouds in tight, after they are braced in by ſwifters, and to afford room to brace the yards ſharp. Pl. 5, fig. 53.

CATFALL. The rope that forms the tackle for heaving up the anchor from the water's edge to the bow. Pl. 4, fig. 4.

CHAIN-BOAT. A large boat fitted with a davit over its ſtem, and two windlaſſes, one forward and the other aft, in the inſide. It is uſed for getting up mooring-chains, anchors, &c.

CHAIN-PLATES. Thick iron plates bolted to the ſhip's ſides, and to which the chains and dead-eyes that ſupport the maſts by the ſhrouds are connected. Pl. 1, fig. 27.

CHAINS OR CHANNELS. Broad thick planks, bolted edgeways againſt the ſhip's ſides, abreaſt and abaft the maſts, uſed to extend the ſhrouds from each other, and from the head of the maſts. Pl. 1, fig. 27.

CHESTREES. Pieces of oak, fitted and bolted to the top-ſides of veſſels abaft the fore channels, with a ſheave in the upper end. They confine the clues of the main-ſail by hauling home the main-tack through the ſheave.

CHOAKING THE LUFF. Placing the bight of the leading part or fall of a tackle cloſe up between the next part and jaw of the block.

CHOCK. A thick triangular piece of wood, faſtened in a temporary manner in the ſtrap at the arſe of the block: on the baſe of the chock wedges are driven to force the block into its place.

CLAMP. A crooked iron plate, faſtened to the after-end of the main-cap of ſnows, to ſecure the tryſail-maſt.

CLASP-HOOP. See HOOP.

CLEATS. Pieces of wood, of various ſhapes, uſed for ſtops and to make ropes faſt to: viz. ARM or SLING-CLEATS are nailed on each ſide of the ſlings of the lower yard, and have an arm at one end, which lies over the ſtraps of the jeer-blocks to prevent their being chafed. BELAYING-CLEATS have two arms, or horns, and are nailed through the middle to the maſts, or elſewhere, to belay ropes to. COMB-CLEATS are ſemi-circular, and are hollowed in the middle to confine a rope to one place. RANGE-CLEATS are ſhaped like belaying-cleats, but are much larger, and are bolted through the middle. SHROUD-CLEATS have two arms, ſimilar to belaying-cleats; the inſide is hollowed to fit the ſhroud, and grooves are cut round the middle and ends to receive the ſeiſings, which confine them to the ſhrouds. Pl. 3, fig. 12. STOP-CLEATS are nailed to yard-arms, to prevent the ſlipping of the rigging and the gammoning, and to ſtop collars on maſts, &c. THUMB-CLEATS are ſhaped like ſling-cleats, but are much ſmaller.

CLINCH. That part of a cable which is faſtened to the ring of an anchor, &c. See CLINCHES, Part II.

CLOTHING THE BOLSTERS. Laying ſeveral thickneſſes of worn canvas, well tarred, over them, to make an eaſy bed for the ſhrouds.

CLUE-GARNETS. Tackles connected to the clues of main and fore courſes, to truſs the ſail up to the yard. Pl. 2, fig. 20.

CLUE-LINES. See LINES.

COIL. Rope laid in regular folds for the convenience of ſtowage, and hanging upon cleats, to prevent its being entangled.

COLLAR. The upper part of a ſtay; alſo a rope formed into a wreath, by ſplicing the ends together, with a heart, or dead-eye, ſeiſed in the bight, to which the ſtay is confined at the lower part. Pl. 1, fig. 42.

COMB-CLEAT. See CLEATS.

CONTLINE. The ſpiral intervals that are formed between the ſtrands of a rope, by their being twiſted together.

CONT-SPLICE. See Splicing.

CRINGLES. Small loops made on the bolt-rope of a ſail; uſed to faſten different ropes to. hook the reef-tackles to, for drawing the ſail up to its yard, to faſten the bridles of the bowline to, and to extend the leech of the ſail, &c.

CROSS-JACK-YARD. See Yard.

CROTCHES. Pieces of wood or iron, the upper part of which is compoſed of two arms, reſembling a half-moon. They are chiefly uſed to ſupport ſpare-maſts, &c.

CROSS-TREES. Short flat pieces of timber, let in and bolted athwart-ſhips to the treſtle-trees, at the maſt-head, to ſupport the tops, &c.

CROW-FOOT. An aſſemblage of ſmall cords, which reeve through holes, made at regular diſtances, through the uphroe: its uſe is to ſuſpend the awnings, and keep the foot of the top-ſail from ſtriking under the tops.

CROWN of the CABLE. The bights which are formed by the ſeveral turns.

CROWNING. The finiſhing of a knot made on the end of a rope. Pl. 1, fig. 40.

DAVIT. A ſhort boom fitted in the fore-channel, and uſed as the arm of a crane to hoiſt the flukes of the anchor clear of the ſhip's ſide, till high enough to lay on the gunwale, and faſtened by the ſhank-painter. Pl. 4, fig. 4.

DAVIT-ROPE. See Rope.

DEAD-EYES. Wooden blocks, with flatted ſides, having three holes inſtead of ſheaves, through which the laniards reeve, when ſetting up the ſhrouds or ſtays. The power gained by the dead-eyes is as the number of parts of the laniards rove through them; but, if the laniards be not well greaſed, the power will be greatly loſt by friction, ſo that they are never applied as purchaſes, but merely for the better keeping the quantity gained of any ſhroud, or ſtay, when ſet up, and are much ſtronger than blocks with ſheaves, the ſtrain not lying on a ſingle pin. Pl. 1, fig. 27.

DECK-STOPPER. See Stopper.

DERRICK. A tackle uſed at the outer quarter of a mizen-yard, conſiſting of a double and ſingle block, connected by a fall; alſo a *diagonal* ſhore, as a ſupport to ſheers; alſo a ſingle ſpar, top-maſt, or boom, raiſed upright, and ſupported by the guys at the head, whence hangs a tackle over the hatchway, the heel working in a ſocket of wood faſtened on the deck.

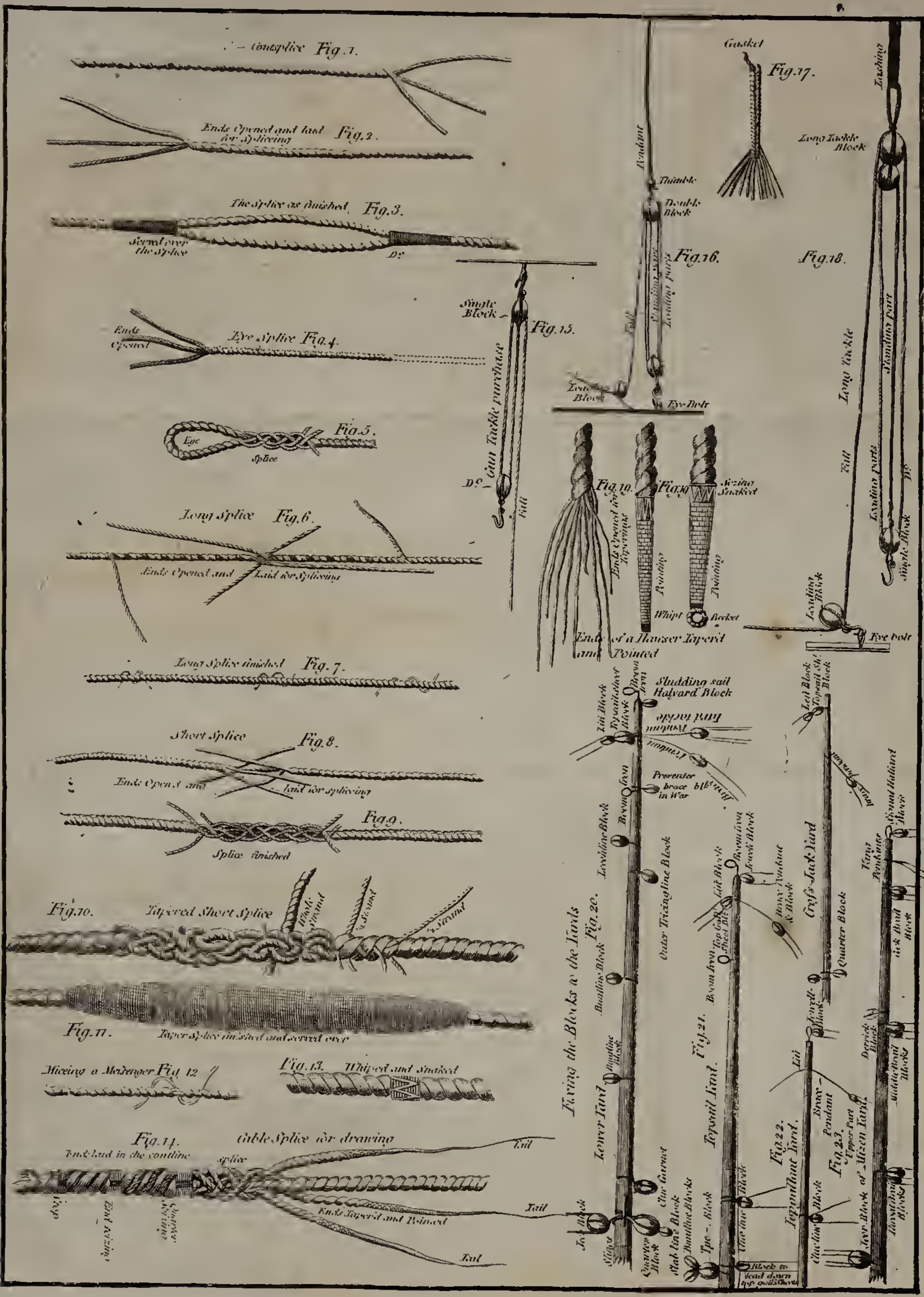
DOG-STOPPER. See Stopper.

DRIVER-BOOM. See Boom.

DRIVER-YARD. See Yard.

DOLPHIN. A rope laſhed round the maſt as a ſupport to the pudding.

Plate, 2.



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DOWNHAULER. A rope which hauls down the ſtay-ſails, ſtudding-ſails, and boom-ſails, to ſhorten ſails, &c. Pl. 7, fig. 12, 19, &c.

EARINGS. Small ropes employed to faſten the upper corners of ſails.

EASE-OFF, OR VEER-AWAY. To ſlacken a rope gradually.

ENTERING-ROPE. See ROPE.

EYE OF A SHROUD. The upper part, which is formed into a ſort of collar to go over the maſt-heads. Pl. 1, fig. 27, 28.

EYELET-HOLES. The holes made in the head and reefs of ſails.

FAKE. One of the turns of a rope when ſtowed or coiled.

FALL. The rope that connects the blocks of a tackle; but the fall ſometimes implies only the looſe part which is pulled upon to produce the deſired effect. Pl. 2, fig. 16.

FANCY-LINES. See LINES.

FANGS, OR LEE-FANGS. A rope faſtened to a cringle, near the foot of a ketch's wing-ſail, to haul in the foot of the ſail for lacing on the bonnet or taking in the ſail.

FENDERS. Pieces of wood, or old cable, bags of old ropeyarn, ſhakings, cork, or other materials, hung by a laniard over a veſſel's ſides to prevent her being damaged. Pl. 3, fig. 42.

FID. A ſquare bar of iron, or wood, driven through a hole in the heel of a top-maſt, when raiſed at the head of a lower-maſt; it, reſting on the treſtle-trees, ſupports the top-maſts, &c. The topgallant-maſt is retained in the ſame manner at the head of the top-maſt, and the royal-maſt above that.

FIDS. Round tapering pins of various ſizes, made of iron or hard wood, and uſed for ſplicing of cordage.

FISH-TACKLE. The tackle uſed to fiſh the anchor and get it into its place from the water's ſurface. See TACKLE.

FISH-TACKLE PENDENTS. See PENDENTS.

FLAG-STAFF. See STAFF.

FLAG-STAFF STAYS. See STAYS.

FLEETING. Changing the ſituation of a tackle, by placing the blocks farther aſunder, the force being deſtroyed by the blocks meeting, called block-and-block.

FLEMISH HORSES. See HORSES.

FLY OF A FLAG. The oppoſite part to the hoiſt.

FLYING OF SAILS. Setting them in a looſe manner; as royal-ſails without lifts or ſheets, the clues being laſhed; as ſmall topgallant-ſails, jibs, without ſtays; and as ſtudding-ſails without booms.

FORE-TOPGALLANT-STAY TACKLE. See TACKLE.

FOUL implies entangled, as the tackle is when twiſted. The cables are FOUL when twiſted round each other, by a veſſel's turning round the anchors by which ſhe rides.

FOXES. Twiſted rope-yarns uſed for making of rope-bands, &c. &c.

FRAPPING. Taking ſeveral turns round the middle of a laſhing, or any number of ropes, and drawing the ſeveral parts tight together. Pl. 1, fig. 30.

FURLING. Wrapping, or rolling, a ſail cloſe up to its yard, maſt, or ſtay, and faſtening it up with gaſkets, lines, &c.

FURLING-LINE. See LINES.

FUTTOCK-PLATE. A narrow plate of iron, having a dead-eye bound in the upper end. An eye is made in the lower end, which is put through a mortiſe in the ſides of the top, to hook the futtock-ſhroud to. Pl. 5, fig. 47, 48, 49.

FUTTOCK-SHROUD. See SHROUD.

FUTTOCK-STAVE. A ſhort piece of rope ſerved over with ſpun-yarn, to which the ſhrouds are confined at the catharpins. Pl. 5, fig. 51.

GAFF. A pole uſed to extend the head of the mizen of a ſhip, and the fore-and-aft mainſails of ſmaller veſſels.

GAMMONING. The rope which binds the inner quarter of the bowſprit cloſe down upon the ſtem, that it may reſt well in its bed. Pl. 4, fig. 4.

GANGWAY-NETTING. See NETTING.

GASKETS. Braided cordage uſed to confine the ſail to the yard, when furled, &c. ARM-GASKETS; thoſe which are uſed at the extremities of yards. BUNT-GASKETS are thoſe uſed in the middle of yards. QUARTER-GASKETS; thoſe uſed between the middle and extremities of the yards. Pl. 2, fig. 17.

GIRT-LINES. See LINES.

GRIPES. Short ropes with dead-eyes, uſed to confine the boats to the deck. Pl. 3, fig. 46.

GROMMETS. Rings, made of worn rope, which are uſed to confine the nock of ſpritſails to the maſt, and the oars of boats to the pins, inſtead of rowlocks, &c.

GUEST-ROPE. See ROPE.

GUN-SLINGS. Similar to bale-ſlings, and are uſed for hoiſting in the guns. Pl. 5, fig. 50.

GUYS. Ropes to ſteady ſheers, davits, or derricks, when charged with any weighty body. Pl. 9.

GUY-PENDENTS. See PENDENTS.

HAG's TEETH. Thoſe parts of pointing, matting, or the like, which are intertwiſted with the reſt in an irregular manner.

HALIARDS. Ropes or tackles employed to hoiſt or lower yards, ſails, and flags, upon the maſts, yards, ſtays, &c. Pl. 7, fig. 13, 20, &c.

HAND-TIGHT. A moderate degree of tenſion on a rope, ſo as to make it ſtrait.

HANKS. Rings made of iron, or hoopſticks bent in a circular form, fixed on the ſtays to confine the ſtayſails.

To HAUL. To pull on a Rope.

HEAD-LINE. See LINES.

HEAD-NETTING. See NETTING.

HEART. A peculiar ſort of dead-eye, reſembling a heart: it has one large hole in the middle, to contain the laniard, by which the ſtays or ſhrouds are extended. Pl. 1, fig. 42.

HEAVER, OR WOOLDER. A ſhort wooden ſtaff, or treenail, uſed as a lever in ſetting up the topmaſt-ſhrouds, ſtrapping of blocks, and ſeiſing the rigging, &c. Pl. 3, fig. 38.

HEAVING. The act of turning about a capſtan, &c. by means of bars or handſpikes.

HEEL-ROPE. See ROPE.

HITCH. A nooſe, by which one rope is faſtened to another, or to ſome object, as a ring, poſt, timber-head, &c. Pl. 1, fig. 8 to 15.

HOIST OF A FLAG OR SAIL. That part which is towards the ſtaff, or bent to a maſt or ſtay.

HOISTING. Drawing up a weight by tackles.

HOLDING-ON. The act of pulling back and retaining any quantity of rope, acquired by the effort of a capſtan or tackle; alſo the end of a ſtopper, nipper, &c. held by the hand.

HOOPS. Thin bars of iron, of circular and other ſhapes. CLASP-HOOPS are ſimilar to other hoops, but open with a hinge. BUOY-HOOPS are the wooden hoops that confine the buoy, and the wreaths of rope that go round the buoy to which the ſtraps are faſtened. WOODEN HOOPS are thoſe which encircle maſts, and to which the fore-leech of ſome ſails are bent.

HORNS. The jaws, or ſemi-circular inner ends, of booms and gaffs.

HORSE. A machine with which the operation of woolding is performed. Pl. 3, fig. 38.

HORSES. Ropes for the men to ſtand upon, or hold by, &c. BOWSPRIT-HORSES are made faſt at the ends, at a parallel height from the bowſprit, and ſerve as rails for the men to hold by when going out upon the bowſprit. Pl. 5, fig. 43. FLEMISH HORSES are ſmall horſes under the yards, without the cleats. Pl. 5, fig. 55. Pl. 6, fig. 1. JIB-HORSES hang under the jib-boom, and are knotted at certain diſtances to prevent the men's feet from ſlipping. TRAVERSE-HORSES are of rope or iron, for ſails to travel on, &c. The one of rope is thick, and extended up and down parallel to the maſt; that on the fore-ſide is for hoiſting or lowering the ſquare-ſail, whoſe yard is attached to the horſe by a traveller, and ſlides up and down occaſionally. The horſe fixed abaft the maſt is for the tryſail of a ſnow, which ſlides up and down with hanks, as a ſtayſail. This is ſeldom uſed but in ſloops of war, which occaſionally aſſume the form of ſnows. HORSES OF IRON are thick iron rods, faſtened at the ends athwart the deck of ſingle-maſt veſſels, before the maſt, for the foreſail-ſheet to travel on; and that abaft the maſt, acroſs the inſide of the ſtern, on which travels the main-ſheet block. YARD-HORSES are ropes depending from the yards, for the men to ſtand upon in looſing, reefing, or furling, the ſails. Pl. 6, fig. 3, 4, 12 to 14, 31 to 35, 53 to 55.

HOUARIO. A ſmall veſſel uſed in the Mediterranean ſea, with lateen ſails and ſliding topmaſts, ſometimes called ſliding gunters by the Engliſh ſailors.

HOUNDS. That part of the maſt-head which gradually projects on the ſtarboard and larboard ſides, beyond the cylindrical ſurface below.

HOUSE-LINE. See LINES.

JACK-BLOCK. A ſmall block ſeiſed to the topgallant-maſt-head, for ſending the topgallant-yards up and down.

JAMBED. Obſtructed and rendered immoveable.

JAWS. Two cheeks, forming a ſemi-circle, which encloſe the after-part of the maſt, ſo as to confine, by the help of the parral, the inner end of the boom or gaff.

JEARS. Tackles for hoiſting or lowering the lower yards. Pl. 2, fig. 20.

JEAR-BITTS. See BITTS.

JEWEL-BLOCKS. Small blocks, ſeiſed to eye-bolts in the extremities of the upper yards, for hoiſting the ſtudding-ſails by the haliards, which reeve through them. Pl. 2, fig. 21.

JIB-BOOM. See BOOM.

JIB-HORSES. See HORSES.

JIGGER. A ſhort rope fitted, with a block and a ſheave, for holding on the cable, as it is hove in by a windlaſs.

JIGGER-TACKLES. Tackles uſed for topping the main and fore yards by the lifts, &c. Pl. 7, fig. 17. See TACKLE.

INHAULER. A rope employed to haul in the jib-boom, &c. Pl. 7, fig. 17.

IRON HORSES. See HORSES.

JUNK. Short pieces of old cable, uſed for mooring ſhips ſterns, or cut into ſmaller portions for making mats, rope-bands, points, gaſkets, &c.

KECKLING. Any old rope wound about a cable to preſerve the ſurface of it from chafing.

KEVELS. Two crooked pieces of timber, whoſe lower ends reſt in a ſtep or foot nailed to the ſhip's ſides; the heads branch out like horns to belay ropes to.

KINKING. The curling up of a rope when twiſted too hard, or drawn haſtily out of the coil.

KNOTS. The faſtenings by which one rope is joined to another, or the knobs formed on their ends to prevent their ſlipping.

LACING. Faſtening the head of a ſail to a maſt, yard, gaff, &c. by a line turned ſpirally round them, and reeved through the eyelet-holes in the ſail. Pl. 7, fig. 70, &c.

LANIARDS. Short ſmall ropes to make faſt the ſhrouds, ſtays, &c. Pl. 1, fig. 27, 42.

LASHERS. The ropes employed to laſh, or ſecure, particular objects, as jears, &c. Pl. 1, fig. 33.

LASHING. Faſtening or ſecuring one thing to another, with ſeveral turns of a rope. Pl. 1, fig. 33, 36.

LATEEN SAIL. A triangular ſail, bent at the foremoſt leech to a yard that hoiſts obliquely to the maſt, and is connected with it at about one third of the length of the yard.

LEADING PART. That part of a tackle which is hauled upon. Pl. 2, fig. 16.

LEGS. Short ropes which branch out into two or more parts, as the bowline legs or bridles, buntline-legs, crowfoot-legs, &c. Pl. 8, fig. 26, 35, &c.

LIFE-LINES. See LINES.

LIFTS. Ropes which ſuſpend the outer quarters of the yards, and raiſe or lower them. Pl. 6, fig. 23, 24, 44 to 46, 61 to 63, 72. STANDING-LIFTS are made faſt, and belong to yards that neyer require to be topped. Pl. 6, fig. 7, 10.

LINES. Cordage ſmaller than ropes, and formed of two or more fine ſtrands of hemp: as HOUSE-LINE, made of three ſtrands; uſed to ſeiſe blocks into their ſtraps and the clues of ſails, and to marl the ſkirts of ſails to their bolt-ropes, &c. LOG-LINE, made of three or more ſtrands, and uſed for the log, &c. MARLINE, made of two ſtrands, and uſed for the ſame purpoſes as houſe-line.

Some ropes are, from their uſe or ſituations, termed lines: as BOWLINES, Pl. 8, fig. 25, 31, 34, 37, 40, 42, 44; BUNTLINES, Pl. 8, fig. 24, 30, 33, 39, 66; CLUE-LINES, Pl. 8, fig. 65; FANCY-LINE, Pl. 7, fig. 69; FURLING-LINE; GIRT-LINE; HEAD-LINE; LEECH-LINES; LIFE-LINES; NAVE-LINE, Pl. 6, fig. 29; SLAB-LINE; SPILLING-LINES; TOW-LINE; and TRICING-LINE, Pl. 6, fig. 19, 20.

BOWLINES are uſed to brace the ſails ſideways, or cloſe-haul to the wind, the weather or windward leeches of the ſails forward; which are kept ſteady by the tenſion of the bowline. Pl. 8, fig. 25, 31, &c. BUNTLINES are ropes faſtened to the foot of ſquare ſails, to haul them up to their yards.

Pl. 8, fig. 24, 33, &c. CLUE-LINES are ſimilar to the clue-garnets, and are uſed to ſquare ſails in general; whereas clue-garnets are confined to the main and fore courſes. Pl. 2, fig. 21, 22. FANCY-LINE is a rope uſed to overhaul the brails of ſome fore-and-aft ſails. Pl. 7, fig. 69. FURLING-LINE is a ſmall rope, or a line, uſed to faſten ſmall ſails to the yards, when furled. GIRT-LINE is a rope reeved through a ſingle block, occaſionally laſhed to maſt and ſheer heads, to hoiſt up rigging, &c. HEAD-LINE is the line ſewed along the upper edge of ſails, flags, &c. to ſtrengthen them. LEECH-LINES are ropes uſed to truſs up the ſails. Pl. 8, fig. 23, 29, &c. LIFE-LINES are for the preſervation of the ſeamen upon the yards. NAVE-LINE is a tackle depending from the maſt-head to the truſſes, to keep them oppoſite the yards whilſt hoiſting or lowering. Pl. 6, fig. 29, 30. SLAB-LINE is a rope uſed to truſs up the foot of the main and fore courſes occaſionally, that the pilot or maſter may ſee forward underneath, as the ſhip advances. SPILLING-LINES of the courſes and top-ſails are lines uſed to ſhake the wind out of thoſe ſails. TOW-LINE is a ſmall hawſer, uſed to remove any veſſel by means of anchors, capſtans, &c. TRICING-LINE is a ſmall rope or tackle, uſed to hoiſt any object to a higher ſtation and render it more convenient; ſuch are the tricing-lines of the yard-tackles. The inner tricing-line hoiſts the block, and the outer tricing-line the parts of the tackle. Pl. 6, fig. 19, 20.

LIZARD. An iron thimble ſpliced into the main-bowlines, and pointed over to hook a tackle to.

LOG-LINES. See LINES.

LOOP. A nooſe made in a rope.

LOOSING THE SAILS. Unfurling them for ſetting, or for drying when wet.

LOWER-SHROUDS. See SHROUDS.

LOWER-STAYS. See STAYS.

LUFF-TACKLE. A tackle uſed occaſionally at any part of the ſhip. See TACKLE.

MAIN-STAY-TACKLE PENDENTS. See PENDENTS.

MAIN-BOOM. See BOOM.

MAN-ROPES. See ROPES.

MARLINE. See LINES.

MARLING-SPIKE. A tapered iron pin, with a globular head, uſed to make openings between the ſtrands of ropes for introducing the ends of others through them: it is ſometimes uſed as a lever to ſtrain tight ſeiſings, &c.

MARTINGAL. An aſh bar, fixed downwards from the fore-ſide of the bowſprit-cap, and by which the martingal-ſtay ſupports the jib-boom. Pl. 5, fig. 57.

MARTINGAL-STAY. See Stay.

MASTS. Long cylindrical pieces of timber, to which are faſtened the yards, ſails, and rigging.

MAST-COATS. Coverings made of well-tarred canvas to prevent the water going down the maſt-hole.

MAT. A thick texture made of ſpun-yarn, ſtrands of rope, or foxes, woven or plaited together, and faſtened upon maſts, yards, &c. to prevent their chafing. Pl. 3, fig. 34.

MESSENGER. A cable-laid rope, uſed to heave in the cable.

MESHES. The ſpaces between the lines of a netting. Pl. 1, fig. 34, 35.

MOUSE. A large knob, in the ſhape of a pear, formed on ſtays, Pl. 3, fig. 42; alſo a ſmaller one round meſſengers, by intertwiſting a ſmall rope round the ſtrands. Pl. 2, fig. 12.

MOUSING a HOOK. Taking ſeveral turns of ſpunyarn round the back and point of a hook, and faſtening it, to prevent its unhooking.

NAVE-LINE. See Lines.

NETTING, Pl. 1, fig. 34, 35. A fence made by ſeiſing together the bights of ſmall ropes, leaving uniform ſpaces or meſhes between: it is uſed in different parts of a ſhip; thus, the Boarding-netting is thrown over the ſides to prevent the enemies boarding. Bowsprit-netting is faſtened at the outer end of a bowſprit to the horſes, or man-ropes, to ſtow away the fore-topmaſt-ſtayſail and jib. Breastwork, Gangway, Quarter, and Waist, Nettings are uſed to keep the hammocks in the ſtantions. Head-netting is faſtened to the horſes in the head and upper rail, to ſave the men from ſlipping overboard. Quarter-deck-netting is ſuſpended over the officers heads to prevent any thing falling thereon in time of action. Top-netting is faſtened to the rail, ſhrouds, and top, to preſerve the men from falling.

To NIPPER or NIP ropes is to ſtop them with ſeveral turns of rope-yarn, or ſpunyarn, alternately, round each, and the ends made faſt.

NIPPERS. Braided cordage twelve or fourteen feet long, uſed in heaving in the cable by the viol or meſſenger.

NORMAN. A ſhort wooden bar, with a head, uſed in one of the holes of the windlaſs when there is little ſtrain on the cable.

NUT-SLINGS. Similar to bale-ſlings, uſed in hoiſting in guns. Pl. 3, fig. 50.

OAKUM. Old ropes untwiſted and picked ſmall.

OVERHAULING. Extending the ſeveral parts of a tackle, or ropes, connected to blocks or dead-eyes, to any diſtance required.

OUTHAULER. A rope made faſt to the tack of the jib to haul it out by. Pl. 7, fig. 16.

OUTHAULER-TACKLE. A tackle uſed to bowſe out the jib-boom.

PAINTER. A rope ſecured to the bow of a boat to make her faſt with.

PANCH. A covering of wood, or a thick texture made of plaited rope-yarn, larger than a mat, to preſerve the maſts, &c. from chafing.

PARCELLING. Wrapping worn canvas round ropes to prepare them for ſerving. Pl. 3, fig. 21.

PARRAL. A ſort of collar by which the yards are faſtened at the ſlings to the maſts, ſo that they may be hoiſted or lowered with facility. Pl. 3, fig. 27, 28.

PARRAL-TRUCKS. See Trucks.

PASSAREE. Any rope faſtened round the cat-head and fore-tack to keep tight the leech of the ſail in light winds.

To PAY OUT. To let a cable or other rope run out of the veſſel.

PEEK-HALIARDS. The ropes by which the outer end of a gaff or yard, that hangs obliquely to a maſt, is hoiſted. Pl. 6, fig. 74.

PENDENTS. Large, but ſhort, ropes, which go over the maſt-heads, and to which are hooked the main and fore tackles. There are, beſides, many other pendents, with a block or tackle attached to one end, all of which ſerve to tranſmit the effort of their tackles to ſome other object: ſuch are the Bill-pendent; Brace-pendents, Pl. 6, fig. 5, 21, 22, &c. Preventer-brace Pendents, Pl. 6, fig. 79; Burton-pendents, Pl. 5, fig. 6, 15, 16; Fish-pendents, Pl. 4, fig. 4; Guy-pendents, Pl. 6, fig. 78; Main-stay-tackle Pendents, Pl. 5, fig. 46; Pendents of tackles, Pl. 6, fig. 15, 16; Quarter-Tackle Pendents, Pl. 6, fig. 80; Reef-Tackle Pendents, Pl. 6, fig. 47, 48; Rudder-pendents; Stay-tackle Pendents, Pl. 5, fig. 46; Top-rope Pendents; Truss-pendents, Pl. 9; Vang-pendents, Pl. 6, fig. 75; Winding-tackle Pendents, Pl. 3, fig. 26; and Yard-tackle Pendents, Pl. 6, fig. 15, 16. For the preparation of theſe pendents, ſee the next Part.

PINS, for belaying ropes to, are turned wooden pins, with a ſhoulder near the middle; the ſmall end is driven through the rough-tree rails, or racks of thin plank made on purpoſe. Iron belaying-pins are round, taper from the middle to each end, and are driven in the rails, or racks, to belay the ropes to, by taking ſeveral croſs turns about them. Pins for blocks are of wood or iron, driven through the ſhell, and form the axis on which the ſheaves turn. Pl. 3, fig. 11.

POINTING. Tapering the end of a rope, or ſplice, and working over the reduced part a ſmall cloſe netting, with an even number of knittles twiſted from the ſame, to prevent the end untwiſting and to go more eaſily through a block or hole. Pl. 2, fig. 19.

POINTS. Short pieces of braided cordage plaited together.

PORT-TACKLES. Tackles uſed to hoiſt and lower the port-lids. See TACKLE.

PREVENTER. An additional rope, employed ſometimes to ſupport or anſwer the purpoſe of another that has a great ſtrain or is injured. Such are the PREVENTER-BRACES, SHROUDS, STAYS, &c. Pl. 2, fig. 20.

PREVENTER-STAYS. See STAYS.

PREVENTER-SHROUDS. See SHROUDS.

PREVENTER-STAY TACKLE. See TACKLE.

PREVENTER-BRACE PENDENT. See PENDENTS.

PUDDENING. A thick wreath, made of rope, faſtened about the main and fore maſts of a ſhip to prevent their yards from falling down when the ropes that ſupport them are injured. Pl. 3, fig. 29, 31.

QUARTER-CLOTH. Canvas nailed with ſennit along the rough-tree rail on the quarter-deck, and to the plank-ſheer to keep out the ſpray of the ſea.

QUARTER-TACKLES. Tackles uſed to hoiſt water, proviſions, &c. in or out of the ſhip.

RACK. A ſhort thin plank, with holes made through it, containing a number of belaying-pins, uſed inſtead of cleats: it is ſeiſed to the ſhrouds and nailed over the bowſprit or windlaſs.

RACK. A long ſhell, containing a number of ſheaves, formerly fixed over the bowſprit to lead in the running rigging; at preſent, wooden ſaddles, with holes in them, are nailed on the bowſprit for this purpoſe, being more out of the way and leſs liable to be out of order.

RACKING A TACKLE. Faſtening together the fall of a tackle, or any two ropes, by paſſing two or more croſs turns with rope-yarn round each part and as many round turns above them, making faſt the ends with a reef-knot.

RANGE-CLEATS. Large cleats, with two arms, bolted in the waiſt of ſhips to belay the tacks and ſheets to.

RATLINGS. Small ropes which croſs the ſhrouds horizontally at equal diſtances from the deck upwards, forming ladders to go up or down from the maſt-heads. Pl. 5, fig. 52.

REEF. That portion of a ſail contained between the head or foot, and a row of eyelet-holes parallel thereto, which portion is taken up to reduce the ſurface of the ſail when the wind increaſes. Sails, according to their ſizes, have from one to four reefs. A BAG-REEF is the fourth, or lower, reef of a topſail. A BALANCE-REEF croſſes the boom-mainſails diagonally, from the nock to the end of the upper reef-band on the after-leech.

REEF-TACKLES. Tackles uſed to draw the leeches of the ſails at the reefs cloſe up to the yards for reefing them. See TACKLE.

REEF-TACKLE PENDENTS. See Pendents.

To REEVE. To paſs a rope through a block or hole.

RELIEVING-TACKLES. Tackles uſed to the fore end of the tiller when the tiller-rope is damaged. See Tackles.

RIBS of a PARRAL. Short flat pieces of wood, having a hole near each end through which the parral-rope is reeved. Pl. 3, fig. 27.

RIDING-BITT. See Bitts.

RIDGE-TACKLE. The tackle uſed to ſuſpend the awning in the middle. See Tackle.

RIGGING-HOUSE, or LOFT. A place on ſhore in which much of the rigging is prepared for fitting on-board: at the upper end of it is a windlaſs, and at certain diſtances, down the middle, are two rows of large ſtrong poſts, for ſtretching ropes and laying on ſervice; on each ſide of the houſe are berths for the men to prepare ſmall rigging in. Such of the rigging as is here prepared is fully explained in Part II. but, as that is diſperſed in alphabetical order, it may be convenient, perhaps, to preſent, at one view, a liſt of thoſe articles which are thus previouſly prepared on ſhore. They conſiſt of the following, viz.

Backstays; ſtanding backſtays for top-maſts and topgallant-maſts; Pl. 5, fig. 21, 24, 26, 36, 37, 38. — Beckets; Pl. 3, fig. 15. — Bobstays; Pl. 5, fig. 2. — Breast-backstay Runners; Pl. 5, fig. 20, 23. — Buoy-hoops; Pl. 4, fig. 8, 9. — Buoy-ropes; Pl. 4, fig. 8, 9. — Buoy-slings; Pl. 4, fig. 8. — Catharpin-legs; Pl. 5, fig. 53. — Collars for the bobſtays, bowſprit-ſhrouds, fore-ſtay, fore preventer-ſtay, main-ſtay, main preventer-ſtay, topmaſt-ſtays, and topmaſt preventer-ſtays; Pl. 5, fig. 54. See the other articles. — Davit-guys; Pl. 4, fig. 4. — Fore-tack; Pl. 8, fig. 22. — Futtock-staves; Pl. 5, fig. 51. — Horses for the jib-boom and lower yards; Pl. 5, fig. 55, alſo Pl. 6, fig. 1, 3, 4, 12, &c. — Main-tack; Pl. 8, fig. 28. — Parral-ropes; Pl. 3, fig. 27, 28. — Pendents; bill-pendent, brace-pendents, fiſh-tackle pendent, fore-tackle pendents, guy-pendents, mainſtay-tackle pendents, main-tackle pendents, mizen-burton pendents, preventer-brace pendents, quarter-tackle pendent, reef-tackle pendents, rudder-pendents, topmaſt-burton pendents, top-rope pendents, truſs-pendents, vang-pendents, winding-tackle pendent, and yard-tackle pendents; Pl. 6, fig. 5, 21, 22, &c. Pl. 4, fig. 4. See alſo the other articles in Pl. 5 and 6. — Puddening of Anchors; Pl. 4, fig. 2. — Runners of Tackles; Pl. 5, fig. 22, 25, 27, 58. — Shrouds; bowſprit-ſhrouds, futtock-ſhrouds, the lower, top-maſt, and topgallant, ſhrouds; Pl. 5, fig. 3, 7, 8, 9, &c. — Slings; butt and hogſhead ſlings, can-hook ſlings, gun and nut ſlings; Pl. 3, fig. 33, 41, 47, 58. — Spans about the maſts, and long-and-ſhort ſpans. See Part II. — Standing-lifts. See Part II. — Stays for the lower-maſts, topmaſts, and topgallant-maſts; Pl. 5, fig. 2, 10, 11, 12, &c. — STOPPERS, deck and bitt ſtoppers; Pl. 4, fig. 1. — STRAPPING OF BLOCKS; Pl. 3, fig. 2 to 19. SWIFTERS; See SHROUDS, Part II. — TIES for the lower yards, and ſingle ties for the topſail-yards; Pl. 6, fig. 25, 26. — WOOLDING the maſts; See Part II.

RING-TAIL BOOM. See BOOM.

RING-ROPE. See ROPES.

RING-BOLT. An iron bolt, with a ring fitted in an eye at the end.

ROLLING-TACKLES. Tackles uſed to ſupport the topſail-yards, and preſerve the parrals. See TACKLE.

ROPE-BANDS. Braided cordage, uſed to faſten the heads of ſails to their reſpective yards.

ROPES. All cordage in general above one inch in circumference, which bear different names, according to their various uſes. BELL-ROPE is hawſer-laid rope, nine or twelve feet in length, which bends round a thimble in the eye of the bell-ſtrap or crank. In the middle of the rope is a diamond-knot, and at the end a double wall-knot, crowned. BOLT-ROPE is the rope ſewed to the ſkirts, or edges, of ſails. BUOY-ROPE, a rope faſtened to the buoy of the anchor. BREAST-ROPE is faſtened along the laniards of the ſhrouds, for ſafety, when heaving the lead in the chains. DAVIT-ROPE, the laſhing which ſecures the davit to the ſhrouds, when out of uſe. ENTERING-ROPES hang from the upper part of the ſtantions, along-ſide the ladder, at the gangways. GUEST-ROPE is faſtened to an eye-bolt in the ſhip's ſide, and to the outer end of a boom projecting from the ſhip's ſide, by guys, to keep the boats clear off the ſides. HEEL-ROPE is to haul out the bowſprits of cutters, &c. MAN-ROPES are for the ſecurity of the men, when going out on the bowſprit. PARRAL-ROPES are to connect the ribs and trucks of parrals together. PASSING-ROPES lead round the ſhip, through eyes in the quarter, waiſt, gangway, and forecaſtle, ſtantions, forward to the knight-heads. RING-ROPES are occaſionally made faſt to the ring-bolts in the deck, and, by croſs turns round the cable, to confine it ſecurely in ſtormy weather. SLIP-ROPE is to trice the bight of the cable into the head; and is alſo employed in caſting off a veſſel, till in a tide's way, &c. TILLER-ROPE is the rope by which the tiller is worked. TOP-ROPE is a rope reeved through the heel of a topmaſt, to raiſe it by its tackle to the maſt-head.

ROPE-YARN. One of the threads of which a rope is compoſed.

ROUGH-TREE RAIL. A rail, breaſt high, along the ſides of the poop and quarter-deck.

ROUNDING. Serving the cable with worn rope, or ſennit, to ſecure it from chafing. Pl. 4, fig. 5.

ROWSING. Pulling upon a cable or rope, without the aſſiſtance of capſtans, &c.

ROYAL-STAY. See STAY.

ROYAL-YARD. See YARD.

RUDDER-COATS. Coverings made of well-tarred canvas, to prevent the water from coming in at the rudder-hole.

RUDDER-TACKLES. Tackles uſed to ſave or direct the rudder, when any accident happens to the tiller. See TACKLES.

RUDDER-PENDENTS. See PENDENTS.

RUNNER. A ſingle rope, connected with a tackle, which tranſmits its effort the ſame as if the tackle was the whole length; ſuch are the BREAST-BACKSTAY RUNNER, RUNNERS OF TACKLES, &c. Pl. 5, fig. 22, 25, 27.

RUNNER-TACKLES. Tackles uſed to ſet up the ſhrouds, and to get the maſt-heads forward for ſtaying the maſts.

RUNNING-RIGGING. All that part of rigging which traverſes through blocks, &c. See Pl. 6.

SADDLES FOR BOOMS. Small blocks of wood, hollowed on their lower and upper ſides, and nailed on the yards and bowſprits, for retaining booms in a ſteady poſition. The lower ſide is hollowed, to fix the convexity of the yard it is intended for; and the upper ſide to the figure of the boom, as a channel for it to ſlide on. SADDLES, on the bowſprit, for leading the rigging through, are ſemi-circles, made to fit the convex ſurface of the bowſprit; they are rounded on the back, and have ſeveral holes made in the ſides, through which the rigging is led, when they are nailed to the inner part of the bowſprit.

SEISING. Joining two ropes, or the two ends of one rope, together, &c. by taking ſeveral cloſe turns of ſmall rope, line, or ſpunyarn, round them. END-SEISING is a round ſeiſing on the end of a rope; Pl. 1, fig. 27. THROAT-SEISING is the firſt ſeiſing clapt on where a rope or ropes croſs each other; Pl. 1, fig. 27. MIDDLE-SEISING is a ſeiſing between a throat and end-ſeiſing; Pl. 1, fig. 27. EYE-SEISING is a round ſeiſing next the eye of a ſhroud, &c. Pl. 1, fig. 27.

SELVAGEE. Several rope-yarns turned into a circular form, and marled together with ſpunyarn. It is uſed to attach the hook of a tackle to any rope, ſhroud, or ſtay, to extend, or ſet them up, not being ſo likely to ſlip as rope: two or more turns of the ſelvagee are taken round the ſame, in which the hook is fixed. Pl. 3, fig. 48.

SENNIT. Braided cordage, formed of rope-yarn.

SERVING. Encircling a rope with line or ſpunyarn, &c. to preſerve it from being chafed. Pl. 3, fig. 22.

SERVING-MALLET. A cylindrical piece of wood, with a handle in the middle: it is uſed for ſerving, and has a groove along the ſurface oppoſite to the handle, which fits the convexity of the rope to be ſerved. Pl. 3, fig. 22.

SETTING THE SAILS. Looſing and expanding them.

SETTING-UP. Increaſing the tenſion of the ſhrouds, ſtays, and backſtays, to ſecure the maſts by tackles, laniards, &c.

SHACKLE. A ſort of iron ring, to hook a tackle to.

SHANK-PAINTER. A ſhort rope and chain bolted to the ſhip's ſides, above the fore channels, to hang or ſecure the ſhank of an anchor to; the flukes reſting in a chock on the gunwale.

SHEAVE. A ſolid cylindrical wheel, fitted in blocks, &c. and moveable about an axis, called the pin. Pl. 3, fig. 11.

SHEEP-SHANK. A ſort of knot made on backſtays, &c. to ſhorten them. Pl. 1, fig. 26.

SHEERS are uſed for maſting veſſels in the merchant-ſervice, and ſometimes in the royal navy, in places where there is no ſheer-hulk. They are compoſed of two hand-maſts, or large ſpars, erected on the veſſel whoſe maſts are to be fixed or diſplaced: the lower ends or heels reſt on oppoſite ſides of the deck, upon thick planks, ſufficiently long to extend over two or three beams, ſhored underneath. The two hand-maſts croſs each other at the upper end, and are ſecurely laſhed. A tackle is laſhed in the centre, and hangs perpendicularly over the ſtation where the maſt is to be fixed. The ſheers are ſecured by guys, or ſtays, of proportionable rope, extending fore-and-aft to the oppoſite extremities of the veſſel. Pl. 1, fig. 33; and, more clearly, in Pl. 9, placed againſt the title-page.

SHEET. A rope or tackle faſtened to the clues of ſails, to retain them in any direction.

SHEET-STOPPERS. See STOPPER.

SHIFTING-BACKSTAY TACKLES. Tackles uſed to ſet up the ſhifting-backſtays where wanted. See TACKLE.

SHROUDS. A range of large ropes, extended from the maſt-head to the larboard and ſtarboard ſides of the veſſel, to ſupport the maſts, &c. Pl. 5.

The ſhrouds are denominated from the places to which they belong; thus: the fore, main, and mizen, ſhrouds; Pl. 5, fig. 7, 8, 9; fore, main, and mizen, topmaſt-ſhrouds, &c. Pl. 5, fig. 17, 18, 19.

BOWSPRIT-SHROUDS are theſe which ſupport the bowſprit; Pl. 5, fig. 3. BUMKIN-SHROUDS are thoſe which ſupport the bumkins. FUTTOCK-SHROUDS are ſhrouds which connect the efforts of the topmaſt-ſhrouds to the lower-ſhrouds; ſee Pl. 5. BENTINCK-SHROUDS are additional ſhrouds, to ſupport the maſts in heavy gales; ſee Part II. PREVENTER-SHROUDS are ſimilar to bentinck-ſhrouds, and are uſed in bad weather to eaſe the lower rigging.

SHROUD-TRUCKS. See TRUCKS.

SHROUD-STOPPERS. See STOPPERS.

SLAB-LINE. See Lines.

SLINGS. Short ropes, uſed to hang the yards to the maſts, &c. or to encircle a bale or caſk, and ſuſpend it whilſt hoiſting or lowering ; and, alſo, to ſecure buoys, &c. Pl. 3, fig. 24, 33, 41, 50. Pl. 4, fig. 8, 9.

To SLUE. To turn a maſt, or boom, about in its cap, or boom-iron, &c.

SNAKING. A ſort of faſtening to confine the outer turns of ſeiſings, &c. Pl. 4, fig. 2.

SNAKING the STAYS, or ropes, on the quarters, Pl. 3, fig. 23, inſtead of netting, is ſeiſing proportioned ſized rope, at angles, from one ſtay or rope to the other, alternately, in a parallel direction along the whole length. Its uſe to ſtays is, that one part may remain perfect and independent of the other ſhould it be ſhot away.

SNOTTER. A ſhort rope, ſpliced together at the ends, and ſerved with ſpunyarn, or covered with hide : it is ſeiſed to the ſize of the maſt, leaving a bight to fit the lower end of a ſprit, which it confines to the maſt.

SPANS. Short ropes, having a block, thimble, or eye, ſpliced into each end ; the middle is hitched round a maſt, yard, gaff, cap, or ſtay, whence the ends branch out. Spans are ſometimes faſtened at both ends, and have a block in the bight. They are uſed to lead ropes through, which paſs through the blocks or thimbles, to increaſe power or to prevent their ſwinging about.

SPANNING of BOOMS. Confining them by ropes.

SPANNING of RUNNERS. Taking ſeveral turns with ſmall ropes round both runners abaft the maſt, and frapping the turns.

SPANISH WINDLASS. See Windlass.

SPARS. Small fir-trees.

SPILLING-LINES. See Lines.

SPLICING. Joining one rope to another, by interweaving the ends, or uniting the end of a rope into another part of it. There are different ſorts of ſplices, viz. the Cont-splice, which forms an eye in the middle of a rope; Pl. 2, fig. 1, 2, 3. The Eye-splice forms an eye or circle at the end of a rope on itſelf, or round a block, &c. Pl. 2, fig. 4, 5. The Long-splice is made to rejoin a rope or ropes intended to reeve through a block, without increaſing its ſize; Pl. 2, fig. 6, 7. The Short-splice is made by untwiſting the ends of a rope, or of two ropes, and placing the ſtrands of one between thoſe of the other; Pl. 2, fig. 8, 9. The Tapered-splice is chiefly uſed on cables, and is made as the ſhort-ſplice, but is gradually tapered toward each end, by cutting away ſome of the rope-yarns, and is ſerved over ; Pl. 2, fig. 10, 11. The Drawing-splice is a ſplice uſed for joining cables together, and is eſteemed the beſt for this purpoſe, as it may be readily undone ; Pl. 2, fig. 14.

SPRIT. A ſmall yard, or pole, by which the ſpritſails are extended. The foot of it is fixed in a ſnotter, which encircles the maſt, and it croſſes the ſail diagonally, the upper end being attached to the peek.

SPUNYARN. Two or more rope-yarns twiſted together.

SQUARE-RIGGED. A term applied to thoſe ſhips which have long yards, at right angles with the length of the keel, and low maſts: it is thence uſed in contra-diſtinction to thoſe veſſels whoſe ſails are extended by ſtays, lateen-yards, &c.

SQUARE-SAIL BOOM. See BOOM.

STAFF. A light pole on which the flags are hoiſted. The ENSIGN-STAFF is the principal ſtaff, and is erected on the ſtern, within-ſide the taffarel, to diſplay the enſign. FLAG-STAFFS are alſo erected on the maſt-heads, or formed by the upper part of the topgallant-maſts, to hoiſt the flags, royals, &c. The JACK-STAFF is a ſhort ſtaff, erected on the aftſide of the bowſprit-cap, to expand the jack.

STAGE. A ſmall platform made of grating, or of ſhort boards, for men to ſtand upon to fix the rigging toward the outer end of the bowſprit, &c.

STANDING-PART. That part of a tackle which is made faſt. Pl. 2, fig. 18.

STANDING-PART OF A ROPE, (in the making of knots, &c.) means the principal part of a rope, in contra-diſtinction to the end by which the knot is formed; or it may be ſaid to be that part of a rope which is at reſt, and is acted upon by the end.

STANTIONS OF THE NETTINGS. Square wooden pillars, let into the upper part of the ſhip's ſide, or ſmall pillars of iron, uſed to ſupport the nettings, awnings, &c.

STAYS. Strong ropes, to ſupport the maſts forward, which extend from their upper part, at the maſt-head, toward the fore part of the ſhip. The ſtays are denominated, from the maſts, LOWER-STAYS, TOPMAST-STAYS, TOPGALLANT-STAYS, FLAGSTAFF or ROYAL STAYS, &c. Pl. 5, fig. 11, 13, 14, 39, 40, 41.

BACKSTAYS, (BREAST, SHIFTING, and STANDING,) are ſtays which ſupport the topmaſts and topgallant-maſts from aft; they reach from the heads of the topmaſt and topgallant-maſt to the channel on each ſide of the ſhip, and aſſiſt the ſhrouds when ſtrained by a preſs of ſail. The ſhifting backſtays change according to the action of the wind upon the ſails, whether aft or upon the quarter; Pl. 5, fig. 20, 27, 36, 37, 38. BOBSTAYS are ſtays uſed to confine the bowſprit down upon the ſtem, and counteract the force of the ſtays which draw it upwards; Pl. 5, fig. 2. STAYSAIL-STAYS are thoſe ſtays on which the ſtayſails are extended; Pl. 7, fig. 18, 23, 27, 31, 37, 43, 48, 54, 59. The JIB-STAY is ſimilar to the ſtayſail-ſtays, and extends the jib; Pl. 7, fig. 15. The MARTINGAL-STAY ſupports the jib-boom, as the bobſtays ſupport the bowſprit; Pl. 5, fig. 42. Preventer or Spring Stays are ſubordinate ſtays to ſupport their reſpective ſtays, and ſupply their places in caſe of any accident; Pl. 5, fig. 10, 12, 28, 30. Skiatic-stays are ropes uſed for hoiſting or lowering burdens in or out of ſhips.

STAYSAIL-STAY TACKLES. Tackles uſed to ſet up the jib and other ſtayſail-ſtays. See Tackle.

STAY-TACKLE PENDENTS. See Pendents.

STAY-TACKLES, Main and Fore Hatch. Tackles uſed for hoiſting the proviſions, &c. out of the main and fore hold, and for hoiſting the boats in or out.

STERNFAST. A rope to confine the ſterns of boats, &c.

STIRRUPS. Short ropes, which have their upper ends plaited and nailed round the yards: eyes are made in their lower ends, through which the horſes are reeved, to keep them parallel to the yards. Pl. 6, fig. 3, 12, 13, 31, 38.

STOOLS. Small channels, fixed to the ſhip's ſides, to contain the dead-eyes for the backſtays.

STOP. Several turns of ſpunyarn taken round the end of a rope, ſimilar to a ſeiſing, to faſten it to another rope. Alſo, a projection left on the upper part of topgallant-maſts, &c. to prevent the rigging from ſliding down. Pl. 1, fig. 15.

STOPPERS. Short ropes, uſed to check the cable, ſuſpend weighty bodies, and retain the ſhrouds, &c. in a fixed poſition, after being damaged, or otherwiſe. Anchor-stoppers are uſed to ſuſpend the anchor, when catted; Pl. 4, fig. 4. Bitt-stoppers are thoſe ſtoppers uſed to check the cable; Pl. 4, fig. 4. Deck-stoppers are uſed to retain the cable when the ſhip is riding at anchor; Pl. 4, fig. 4. Dog-stoppers are uſed either as additional ſecurities when the ſhip is riding in heavy gales, or for bringing up a ſhip with much ſternway, to prevent the cable from ſnapping at the bitts, and to eaſe the deck-ſtoppers; Pl. 4, fig. 4. Wing-Stoppers are uſed for the ſame purpoſes as dog-ſtoppers; Pl. 4, fig. 1. Shroud-stoppers are uſed to confine a ſhroud together, when damaged or ſhot. Fore-tack and Sheet Stoppers are for ſecuring the tacks and ſheets, till belayed.

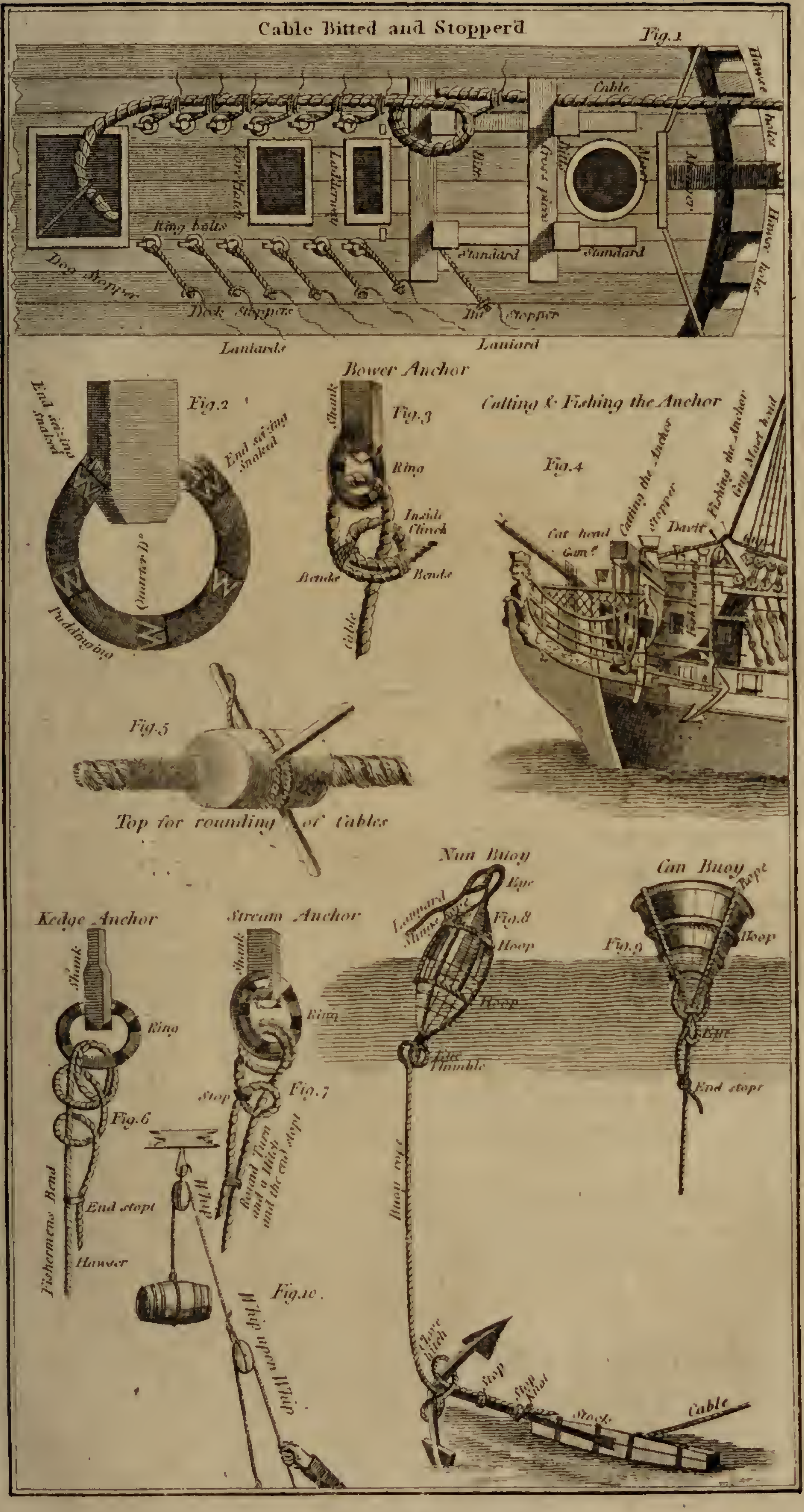
STRAPS. Wreaths of rope ſpliced round blocks, or encircling a yard or any large rope, by which tackles, &c. may be connected to them. Pl. 3, fig. 2 to 19.

STUDDINGSAIL-BOOM. See Boom.

STUDDINGSAIL-YARDS. See Yards.

To SURGE. Gently to ſlack a cable or rope, ſo that it may ſlide up the capſtan, round which it is turned.

Plate, 4.



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SWAB. A large bunch of old rope-yarns, ſeiſed round at the bight, or upper end, and uſed to clean the decks, &c. as a ſort of mop.

SWAGGING-OFF. Pulling upon the middle of a tight rope that is made faſt at both ends.

To SWAY. To haul upon a rope or cable.

SWIFTERS. The after-ſhrouds on each ſide of the main and fore maſts: they are above all the other ſhrouds, and are uſed as an additional ſecurity to the maſts. SWIFTER is alſo a ſmall rope uſed to confine the bars of a capſtan in their holes, while the men are heaving it about. It is likewiſe a large rope, ſometimes uſed lengthways round a boat under the gunwale, to ſtrengthen it, and defend it from other boats which may ſtrike againſt it.

SWIFTERING OF SHROUDS. Stretching them by tackles, to prevent any future extenſion.

TACKS. Ropes uſed to confine the foremoſt lower corners of courſes, and of ſtayſails, and other fore-and-aft ſails; alſo the rope employed to haul out the lower corners of ſtuddingſails; Pl. 7, fig. 35, 40, 46, 52, 57, 62. TACK is alſo applied to that part of a ſail to which the tack is faſtened.

TACK OF A FLAG. A line ſpliced into the eye at the bottom of the tabling, for ſecuring the flag to the haliard.

TACK-STOPPER. See STOPPER.

TACK-TACKLE. The tackle uſed for bowſing down the tack of fore-and-aft mainſails, &c.

TACKLE. A machine formed by the connection of a rope or fall, with an aſſemblage of blocks; Pl. 2, fig. 16, 18. See more particularly, in the ſecond Part, under the word TACKLE.

TACKLE-FALL. That end of the rope of a tackle which is bowſed on, or the rope which compoſes the tackle. Pl. 2, fig. 18.

TACKLE-PENDENTS. See PENDENTS.

TAIL. The long end of a block-ſtrap, by which the block is attached to any place required. Pl. 3, fig. 6, 7.

TARPAWLING. Canvas paid over with tar, and uſed to cover the hatches, to prevent water from coming in; and to cover the blocks at the ſheer-heads of hulks, &c.

THIMBLES. A kind of iron rings, whoſe outſides are grooved, to receive ropes of different ſizes; Pl. 3, fig. 45. They are fixed to the rigging for blocks to be hooked to, and for ropes to reeve through, &c.

THROAT. The inner end of a gaff, or boom.

TILLER-ROPE. See ROPE.

THRUMMING. Interplacing, in a regular manner, through intervals of matting, made by a fid, ſhort pieces of thrums or ropeyarn. Pl. 8, fig. 34.

TIMENOGUY. A rope faſtened at one end to the fore-ſhrouds, and nailed at the other end to the anchor-ſtock, on the bow, to prevent the fore-ſheet from entangling.

TOGGLE. A ſmall wooden pin.

TONGUE. A ſhort piece of rope ſpliced into the upper part of ſtanding backſtays, &c. to the ſize of the topmaſt-heads. It is ſerved over with ſpunyarn, and is uſed to keep them open to the ſize of the maſt-heads.

TOP. A platform, ſurrounding the lower maſt-heads, to extend the topmaſt-ſhrouds, &c.

TOP BRIMS. A ſort of mat, made of old junk, with which the fore part of the top is covered, to prevent the top-ſails chafing.

TOP-ROPE. See ROPE.

TOP-ROPE PENDENTS. See PENDENTS.

TOP-ROPE TACKLES. Tackles uſed to raiſe the top-maſts above the heads of their reſpective lower-maſts.

TOP-TACKLE. See TACKLE.

TOPMAST-STAY AND PREVENTER-STAY TACKLE. The tackles uſed to ſet up the topmaſt and preventer ſtays. See TACKLE.

TOPPING. The act of drawing one of the yard-arms higher than the other, by ſlackening one lift and pulling upon the other.

TOPPING-LIFT. A tackle to ſuſpend, or TOP, the outer end of a gaff, boom, &c. Pl. 6, fig. 77.

TOPSAIL-YARDS. See YARDS.

TOPGALLANT-YARDS. See YARDS.

TOP-NETTING. See NETTING.

TOW-LINE. See LINES.

TRAVELLER. A large iron thimble, whoſe diameter is larger than the common thimbles, though the ſurface is ſmaller: Pl. 3, fig. 20. TRAVELLERS are uſed to facilitate the deſcent of topgallant-yards by the back-ſtays, they being placed on the back-ſtays and ſurrounded by a ſhort rope, or tail, which is faſtened round the yard-arms. The JIB-TRAVELLER is a circular iron hoop, with a hook or ſhackle, uſed to haul out the tack of the jib.

TRAVERSE-HORSES. See HORSES.

TREE-NAILS. Round wooden pins uſed by riggers for levers, or heavers, Pl. 3, fig. 38. Alſo the wooden pins by which the ſhip's planks are faſtened to the timbers.

TRESTLE-TREES. Two ſtrong bars of oak, bolted to the 'thwartſhip ſides of the lower maſt-heads, to ſupport the top and weight of the top-maſt; and to the topmaſt-heads, to ſupport the topgallant-maſts, &c.

TRICING-LINE. See LINE.

TRUCKS. Small pieces of wood, of various ſhapes, uſed for different purpoſes. FLAG-STAFF TRUCKS are round flat pieces of elm, with a ſmall ſheave on each ſide. They are fixed, by a ſquare mortiſe-hole made in the middle, upon the upper end of flag-ſtaffs, and are uſed to reeve the haliards. PARRAL-TRUCKS are round balls of elm, or other wood, and have a hole through the middle, in which a rope is reeved to form the parrals; Pl. 3, fig. 27, 28. SEISING-TRUCKS are ſimilar to parral-trucks, but have a ſcore round the middle to admit a ſeiſing: they are uſed to lead ropes through; Pl. 3, fig. 35. SHROUD-TRUCKS are ſhort cylindrical pieces of elm, &c. Pl. 3, fig. 35 and 37. They have a hole through the middle, lengthways, a groove down the ſide, the ſize of the ſhrouds, and a ſcore round the middle to admit a ſeiſing. They are ſeiſed to the ſhrouds to lead ropes through, that they may be more readily found.

TRUSS. A rope employed to confine or ſlacken the lower-yards to or from their reſpective maſts. Pl. 5, fig. 4.

TRUSS-TACKLES. Tackles uſed to ſecure the lower-yards to their maſts. See TACKLE.

TRUSS-PENDENTS. See PENDENTS.

TIE. A ſort of runner, or large rope, uſed to convey the effort of the tackle to hoiſt the upper-yards and gaff. Pl. 6, fig. 25, 49, 50.

VANGS. The braces that keep ſteady the peek of gaff-ſails and fore-and-aft ſails. Pl. 6, fig. 75, 76.

VANG-PENDENT. See PENDENTS.

To VEER-AWAY. To let go a rope gently.

WARP. A hawſer, uſed to remove a ſhip from one place to another.

WARP, or more properly WOOF, is the twine or thread woven acroſs the knittles in pointing.

WARP OF SHROUDS. The length of the ſhrouds from the bolſter at the maſt-head to the dead-eyes.

WHIP. A ſmall ſingle tackle, formed by connecting the fall to a ſingle block: it is uſed to hoiſt light bodies out of the hold, &c. Pl. 4, fig. 10.

WHIPT. The end of a rope is ſaid to be whipt when ſeveral turns of ſeveral rope-yarns, &c. have been taken upon it, to prevent its unravelling. Pl. 2, fig. 19.

WHIP-UPON-WHIP. The greateſt purchaſe that can be gained by blocks, which is formed by fixing the end of one whip upon another whip-fall. Thus two ſingle blocks will afford the ſame purchaſe as a tackle, having a double and a ſingle block, and with much leſs friction. This purchaſe ſhould therefore be uſed whenever the length of the hoiſt will admit of it. To topſail and topgallant yards, that hoiſt with a ſingle tie, there is ſufficient room to apply this purchaſe as haliards, which will overhaul with great facility. Pl. 4, fig. 10.

WINDING-TACKLE. A tackle uſed chiefly for hoiſting the guns in or out. See Tackle.

WINDING-TACKLE PENDENT. See Pendent.

WINDLASS. A machine, uſed in moſt merchant-ſhips, to anſwer the purpoſe of a capſtan. A Spanish Windlass is formed of an iron bolt, placed in a hole, which is hove round by a woolder, that acts as a lever for turning it round. It is uſed to ſtretch ſmall rigging for ſerving, &c. &c. Pl. 3, fig. 38.

WOOLDER, or HEAVER. A ſhort wooden ſtaff, uſed as a lever to ſtrain ſeiſings, &c. very tight. Pl. 3, fig. 38.

WOOLDING. Winding ſeveral cloſe turns of rope, in a tight manner, round maſts and yards that are made of ſeveral united pieces, to ſtrengthen and confine the ſame together.

WORMING. Winding a rope cloſe along the cont-lines, to ſtrengthen it and make a fair ſurface for ſervice. Pl. 3, fig. 21.

YARDS. Long cylindrical pieces of fir timber, hung to the maſts of ſhips to expand the ſails to the wind. The Lower-yards, to which the courſes are bent, are the largeſt; ſuch are the main, fore, mizen, and ſpritſail, yards, which, except the mizen, hang to the maſts at right angles with the ſhip's length. The Mizen-yard hangs obliquely to the mizen-maſt, parallel to the ſhip's length. The Topsail-yards, which expand the topſails, hang to the topmaſts, next above the lower-yards. The Spritsail-topsail Yard hangs beneath and near the outer end of the jib-boom. The Topgallant-Yards, which expand the topgallant-ſails, hang above the topſail-yards; and the Royal-yards, which expand the royal-ſails, are hung above the topgallant-yards. The Cross-jack Yard is uſed to expand the foot of the mizen-topſail; and the topſail, or ſquare-ſail, of veſſels with one maſt. The Driver-yard is a ſmall yard, which expands the head of the driver without the peek of the gaff, to which it is hoiſted by haliards. Studding-sail Yards hang to the extremities of the yards, and by theſe are expanded the heads of the ſtudding-ſails.

YARD-TACKLES. Tackles uſed to hoiſt the boats, &c. in or out; and which are generally, in bad weather, carried aft and hooked to eye-bolts in the ſide, to prevent too great a ſtrain on the braces. See Tackle.

YARD-HORSES. See Horses.

RIGGING.

PART II.

MUCH of the rigging of all ſhips is previouſly prepared on-ſhore in a houſe or loft; and, before a perſon can poſſibly arrive to the knowledge of fitting rigging on-board, he muſt not only be acquainted with all that is thus prepared on-ſhore, but alſo muſt he know how to perform the various other operations incidental to rigging. Such PREPARATORY KNOWLEDGE, therefore, may be gained by a peruſal of this ſecond Part, alphabetically arranged.

BALE-SLINGS; Pl. 3, fig. 24. See GUN and NUT SLINGS.

BECKETS. Some have an eye ſpliced in one end, and a ſmall walnut-knot crowned at the other: and ſome have both ends ſpliced together like a wreath. BECKETS, for the lifts prepared on-ſhore, are whipt at each end.

BENDS. COMMON BEND; Pl. 1, fig. 5. Paſs the end of a rope through the bight of another rope, then round and underneath the ſtanding-part; but, to prevent its jambing, paſs it round again under the ſtanding-part. The ſheet of a ſail has the end paſſed up through the clue, then round the clue, and underneath the ſtanding-part. The rope of a buoy is paſſed as a ſheet, and has the end ſtopt. Bends of a cable-clinch are paſſed as a ſeiſing. Pl. 4, fig. 3. CARRICK-BEND; Pl. 1, fig. 1. Lay the end of a rope, or hawſer, acroſs its ſtanding-part; then take the end of another rope, or hawſer, and lay it under the firſt ſtanding-part, at the croſs, and over the end; then through the bight, under the ſtanding-part; then over its own ſtanding-part, and underneath the bight again: it is often uſed in haſte to form a greater length to warp or tow with. Fisherman's Bend; Pl. 1, fig. 2. and Pl. 4, fig. 6. Take a round turn with the end of a rope, or hawſer, through the ring of an anchor, &c. and a half-hitch through both parts, and another half-hitch round the ſtanding-part; then ſtop the end. Hawser-bend, Pl. 1, fig. 3, is a hitch, with a throat and end ſeiſing made on one end, and the end of another hawſer reeved through the bight and hitched with a throat and end ſeiſing. Temporary Bend, Pl. 1, fig. 4. commonly made to reeve through large blocks, thus: Lay three fathoms of the end of two hawſers together, and put on a round ſeiſing in the middle; then reverſe the ends to each ſtanding-part, and put on a throat-ſeiſing between each end and the middle, and a round ſeiſing on each end.

BOBSTAYS are uſually prepared on ſhore; and are wormed, parcelled, and ſerved with ſpunyarn, three fourths of the length. Pl. 5, fig. 2.

BREAST-BACKSTAY RUNNERS, prepared on ſhore, are doubled, and cut in the bight. They have a double block ſpliced in one end; are ſerved with ſpunyarn over the ſplice, and the other end is whipped. Pl. 5, fig. 22, 25, 27.

BREECHING. See Gun-Tackles.

BUOY-HOOPS, prepared on-ſhore, Pl. 4, fig. 8, are cut ſixteen inches longer than the length in the table, page 29, to allow for ſplicing the ends together. In the merchant-ſervice they are wormed and ſerved, but not in the king's ſervice.

Each hoop is fixed its breadth within the ſecond iron hoop, at each end, and is reeved through the eye in the ends of the ſlings, before the ends are ſpliced together. Each ſling is doubled, and two ſlings are fixed at each end of the buoy. The eyes of the ſlings, at one end, lead down through the upper hoop, and reeve on the lower hoop; and the eyes of the ſlings, at the other end, lead up under the lower hoop, and reeve on the upper hoop, between the upper ſlings.

The hoops are drawn aſunder, ſufficiently to force the buoy between them; are then put over the ends of the buoy, and the ſlings and hoops got into their places, as nearly as poſſible. The ſlings are placed on the quarters, equally between each other; and the bights fixed in ſcores, in the ends of the buoy. It is next gotten upon the ſtretch: one end of the ſlings is made faſt to a poſt, and the other end to a tackle, whoſe fall is ſwayed tight, or hove ſo by a heaver. When the buoy is thus ſet tight, the hoops are driven by a mallet into their places; and the bight of the ſlings is ſeiſed well together, with a thimble in one end and an eye at the other. Large buoys have ſeven under and ſix riding turns; ſmaller buoys ſix under and five riding turns; the end of the ſeiſing croſſed each way, and the end knotted and crowned. A fid is driven in the eye, to make it round, then driven out, and the two bights marled together.

Another thimble is turned into the thimble in the other end, for bending the buoy-rope to.

BUOY-SLINGS, prepared on ſhore, Pl. 4, fig. 8 and 9, are cut to the firſt length in the following table; and have an eye ſpliced in each end, large enough to reeve the ſame ſized rope; they are then gotten on the ſtretch, and hove out to the next length; then wormed, and ſerved with ſpunyarn from eye to eye.

DIMENSIONS OF BUOY-SLINGS AND HOOPS.

Merchant-Ships.	*King's Ships.*	*Number of Guns.*	*Size of the Buoy.*		SLINGS.				*Length of the Hoop.*		*Number of Slings.*	*Number of Hoops.*
					Length cut out.		*Length hove out.*					
	Rate.		Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.		
	First	110 & 100	4	8	12	9	10	10	5	10	4	2
	Second	98 & 90	4	7	11	11	10	8	5	9		
	Third	80, 74, & 64	4	6	11	8	10	6	5	8		
East-India ships.	Fourth	60 & 50	4	2	10	10	9	8	5	0		
	Fifth	44 to 32	3	10	10	2	8	11	4	4		
West-Ind. ships.	Sixth	28 & 24	3	6	9	2	8	2	3	10		
	Sloops	16 & 14	2	10	7	10	6	8	3	5		
Merchant-vessels 200 tons & under.	Cutters		2	6	7	0	6	2	3	3		
	Brigs		2	3	6	6	5	8	3	0		

BUTT AND HOGSHEAD SLINGS, prepared on-ſhore. Each pair has a thimble ſpliced in one end, which is ſerved with ſpun-yarn over the ſplice, the other end is whipt. Pl. 3, fig. 33 and 47.

CAN-HOOK SLINGS, prepared on-ſhore. A flat broad iron hook, with an eye in one end, is ſpliced through the eye in each end of the ſlings, and ſometimes with a thimble ſeiſed in the bight. Pl. 3, fig. 41.

To CAP a rope. Cover the end with tarred canvas, and whip it with twine or ſpunyarn. Pl. 1, fig. 42.

CATHARPIN-LEGS, prepared on-ſhore, are four in number. The foremoſt is the ſhorteſt, and they increaſe one inch in length as they go aft. The length of the foremoſt one is from four feet, in ſmall, to eight feet, in large, ſhips. They have an eye ſpliced in each end for laſhing; are then wormed, parcelled, and ſerved with ſpunyarn from eye to eye. Pl. 5, fig. 53.

CATSPAW, for ſetting up ſhrouds, &c. Pl. 1, fig. 6. Lay the end of a rope, or fall, over the ſtanding-part and middle of the bight, then turn it three times over both parts, and hook the tackle through both bights.

CLINCHES. Inside Clinch; Pl. 4, fig. 3. The end of a cable is paſſed through the hawſe-hole, and reeved through the ring of the anchor; then paſſed round the ſtanding-part, through the bight, and a circle, which is called the clinch, formed, of the ſame ſize as the ring of the anchor: a throat and end bend is then clapped on, oppoſite each other, and a ſeiſing of ſpunyarn cloſe to the end. All other inſide clinches are ſtopped, ſimilar to the bends of this clinch, with ſmall rope or ſpunyarn. Outside Clinch, Pl. 1, fig. 7, only differs from an inſide clinch by paſſing the end on the outſide, and not through the bight, for the more readily caſting it off.

CLOTHING the BOLSTERS. Lay ſeveral thickneſſes of worn canvas, well tarred, over them, to make an eaſy bed for the ſhrouds.

COLLARS, prepared on-ſhore. Fore-stay Collars are fitted to the circumference of the bowſprit, and ſpliced together at the ends; wormed, parcelled, and ſerved the whole length; then doubled, and a heart ſeiſed in the bight. The ſplice is to lie on the back of the heart with quarter-ſeiſings, a ſcore being cut, on each ſide of the heart, large enough to admit from nine to twelve turns of ſeiſing: the ſeiſing is to be ſnaked on the back, to lie cloſely. Pl. 5, fig. 54.

Main-stay Collar is made by the rope-makers, with an eye in one end; is wormed, parcelled, and ſerved round the eye and the whole length. Pl. 1, fig. 42.

Fore and Main Preventer-stay Collars. The fore preventer-ſtay collar is fitted to the circumference of the bowſprit. The main preventer-ſtay collar is fitted either to the foremaſt or bowſprit, according to which it is ſet up to. They have an eye ſpliced in each end for laſhing; then wormed, parcelled, and ſerved with ſpunyarn from eye to eye; and a heart ſeiſed in the bight, as in the fore-ſtay collar. Pl. 5, fig. 10, 12.

Bowsprit-shroud Collar and Bob-stay Collars are fitted to the circumference of the bowſprit. They have an eye ſpliced in each end; are then wormed, parcelled, and ſerved, from eye to eye; and a heart ſeiſed in the bight, with a long and ſhort leg, with ſeven under and ſix riding turns, well ſtrained and croſſed with two turns: the end whipt, and ſecured with a wall-knot crowned. Pl. 5, fig. 2, 3, 54.

Topmast-stay and Preventer-stay Collars have an eye ſpliced in one end, are wormed and ſerved with ſpunyarn, and have a ſingle block ſeiſed in the bight. Pl. 5, fig. 28, 29, 30, 31, 32. The Fore-topmast-stay Collar is ſeldom uſed; but it is prepared in caſe the bees of the bowſprit ſhould be carried away. Ships, however, that have no bees to the bowſprit, make uſe of this collar.

CROWNING, OR FINISHING, A WALL-KNOT. Pl. 1, fig. 40. Lay the firſt ſtrand over the walling, and the ſecond ſtrand acroſs over the firſt, and the third ſtrand acroſs over the ſecond, and through the bight of the firſt; then haul the ends tight.

DAVIT-GUYS, prepared on-ſhore, have an eye ſpliced in one end to the circumference of the davit-head; are ſerved with ſpun-yarn over the ſplice, and whipt with ſpunyarn at the other end. Pl. 4, fig. 4.

DOLPHINS are made of a piece of worn hawſer-laid rope, nearly as long as the circumference of the maſt, which has an eye ſpliced in each end, and is pointed over the whole length. They are occaſionally laſhed round the maſt, through the eyes, as a ſupport to the puddening.

FENDERS are made of wood, or old cable, bags of old rope-yarn, ſhakings, cork, or other materials, hung by a laniard over a veſſel's ſides, to prevent her being damaged. Pl. 3, fig. 42.

FLEMISH EYE, OR MADE EYE. Open the end of a rope; then open the yarns, dividing them into two parts, and laying one part over the other; or place them together, one part in the other: then well marl, parcel, and ſerve, them together.

FOXES are two or three rope-yarns of junk, twiſted together on the thigh till quite hard; then well rubbed with a hand-full of rope-yarn. Make ſeveral bights over your thumbs to twiſt them together.

FRAPPING, Pl. 1, fig. 36, is taking ſeveral turns with the end of a laſhing round the middle of it, or any number of ropes, and drawing the ſeveral parts tight together.

FUTTOCK-SHROUDS, Pl. 5, fig. 47, 48, 49, prepared on-ſhore. The length allowed is divided into four and cut in the bights. Each length has a hook and thimble ſpliced into each end, and the ends of the ſplices ſtopped with ſpunyarn; then doubled, and a ſpunyarn tied in the middle for the cutting-mark. The hooks are then hooked in each other, and got upon the ſtretch. They ſhould be well hove out, to try the hooks and ſplices, as the topmaſt depends very much thereon. If a hook ſhould break, or the ſplices draw, the former muſt be ſhifted, and the latter hauled tighter through.

After they are ſufficiently ſtretched, the ends of the ſplices are tapered, marled down, and ſerved with ſpunyarn within two feet of the cutting-mark; they are cut aſunder and the ends whipt.

FUTTOCK-STAVES, Pl. 5, fig. 51, prepared on-ſhore, are wormed, parcelled, and ſerved with ſpunyarn the whole length, and then cut to the lengths wanted on-board.

GASKETS are made with three-yarn foxes. Pl. 2, fig. 17. Thoſe for large ſhips conſiſt of nine foxes, and thoſe for ſmaller of ſeven. Place four foxes together, but lay them of unequal lengths; mark the middle of the whole length, and plait four foxes together for eight or nine inches; then double it, and plait the eight parts together for five inches and work in the odd fox. The whole is then plaited together for eighteen inches in length; then leave out one fox, and ſo keep leſſening one fox at a time till you come to five. If the foxes work out too faſt, others muſt ſupply their places till the whole length is worked, which is from five to ſeven fathoms long. To ſecure the ends, make a bight by turning upwards one of the foxes, and plait the others through the bight, then haul tight upon that laid up.

GROMMETS. Worn rope ſpliced together in the form of a wreath, of various ſizes, according to the purpoſes to which they are to be applied. Thoſe for confining the nock of ſpritſails are ſerved over with ſpunyarn and are ſometimes covered with leather.

GUN AND NUT SLINGS, prepared on-ſhore, are ſpliced together with a ſhort ſplice, and ſerved with ſpunyarn over the ſplice. Pl. 3, fig. 24, 32, 39, 50.

HITCHES. Clove-hitch, Pl. 1, fig. 8, is two half-hitches, one at the back of the other, made by the ratlings round the ſhrouds, and by buoy-ropes round anchors. Blackwall-hitch; Pl. 1, fig. 9. Take the end of a rope, or fall of a tackle, round the back of a tackle-hook, and jamb it underneath the ſtanding-part. Half-hitch; Pl. 1, fig. 10. Paſs the end of a rope over the ſtanding-part and through the bight, and lay it up to the ſtanding-part, and repeat it for two half-hitches. Magnus-hitch; Pl. 1, fig. 14. Take two round turns through the ring of an anchor, &c. and bring the end over the ſtanding-part, then round the ring and through the bight. Midshipman's Hitch; Pl. 1, fig. 11. Take a half-hitch round the ſtanding-part, and a round turn above the hitch, which jambs tight. It is moſtly uſed to make faſt the ſheets of ſailing-boats. Racking-hitch, for ſhortening ſlings; Pl. 1, fig. 12. Lay the bight over both parts, and turn it over ſeveral times; then hook the tackle through the bights. Rolling-hitch; Pl. 1, fig. 13. Take two round turns round a maſt, &c. and make two half-hitches on the ſtanding-part. Timber-hitch; Pl. 1, fig. 15. Lay the end over the hauling-part, and paſs it through the bight; then take ſeveral turns round the ſtanding-part, and ſtop the end. The bight ſerves as a ſling for bales, drawing of timber, &c.

HORSES for the yards, Pl. 6, fig. 34, 12, 14, 31, &c. prepared on-ſhore, have an eye ſpliced in one end, the circumference of the yard-arm, and ſerved with ſpunyarn over the ſplice.

KNITTLES are two or three rope-yarns twiſted hard together between the finger and thumb, with the twiſt of the yarn beginning the middle; the ends are whipped.

KNOTS. Bowline-knot; Pl. 1, fig. 17. Hold the end of the rope in the right hand, add the ſtanding-part in the left; then paſs the end under the ſtanding-part in the left hand, and over through the bight; then bring it over the ſtanding-part, and paſs it again through the bight, and haul tight. RUNNING-BOWLINE KNOT has the knot made on the bight inſtead of the ſtanding-part, round which it makes a bight. BUOY-ROPE KNOT, Pl. 1, fig. 16, One end is unſtranded for one yard in length, ſtopped with rope-yarn, and one of the nine ſmaller ſtrands taken out of each of the larger ſtrands, which are then laid together again. The three ſmaller ſtrands are double-walled, right handed, cloſe to the ſtop, and then laid up their cont-lines. DIAMOND-KNOT, ſingle. Pl. 1, fig. 18. The ſtrands of the rope are untwiſted to where the knot is deſigned to be made; then form bights, by laying the ſtrands down the ſides of the rope, and keep them faſt: then paſs the end of the firſt ſtrand through the ſecond bight, miſſing the firſt; and the end of the ſecond ſtrand through the third bight, round the ſecond; and the end of the third ſtrand round the ſecond and third bight: then paſs the end through the firſt bight and haul tight. The ſtrands are then twiſted together to the next knot. DIAMOND-KNOT, double, Pl. 1, fig. 19, is made by the ſeveral ſtrands following their reſpective places through the bights of the ſingle knot, and led up through the middle, and the ſtrands twiſted together to the place of the next knot. Theſe knots are uſed as ornaments upon bell and ſide ropes. OVERHAND-KNOT, Pl. 1, fig. 20, is made by paſſing the end over the left hand and through the bight. REEF-KNOT, Pl. 1, fig. 25, is to attach the two ends of a rope together; and, in making, obſerve to paſs both parts of the rope on one ſide, in the bight of the other, thus, Turn up one end and form a bight, and put the other end up through the bight; take it round underneath, and paſs it through the bight again. SHROUD-KNOT. Pl. 1, fig. 22, 23, 24. The two ends are opened about four feet and interplaced one in the other, as for ſplicing; then a ſingle wall-knot is made with the ends on each part, and the ends laid in the cont-line, tapered, and ſerved over with ſpunyarn. SPRITSAIL-SHEET KNOT. Pl. 1, fig. 21. The ends of the rope are firſt thruſt through holes, one on each ſide of the ſpritſail-ſheet block; then untwiſted about two feet, and the ſix ſtrands walled together and crowned at top, thus: Lay four ſtrands over the walling, two to the right and two to the left; the remaining two ſtrands are woven contrarywiſe over and under the other ſtrands, and hauled tight; the block is then ſeiſed in the bight. STOPPER-KNOT, Pl. 1, fig. 37, is made the ſame way as a double wall-knot, and the ends put up through the heart and whipt at top. TACK-KNOT, Pl. 1, fig. 41, is made by untwiſting the ſtrands ſufficiently and there making a ſtop with ropeyarn: then ſingle wall and crown, then double wall and double crown, and haul the ends tight and jamb the knot: then the ſtrands are led down through the walling and laid down in the cont-line; tapered, marled, and ſerved over with ſpunyarn. WALL-KNOT, ſingle, Pl. 1, fig. 38, 39, is made by untwiſting the ends of a rope and making a bight with the firſt ſtrand; then paſſing the ſecond over the end of the firſt, and the third ſtrand over the end of the ſecond, and through the bight of the firſt, and haul the ends tight. WALL-KNOT, double, Pl. 1, fig. 40, is made by paſſing the ends, ſingly, cloſe underneath the firſt wall, and thruſting them upwards through the middle, only the laſt end comes up under two bights.

LASHING. LASHING OF BLOCKS. Pl. 2, fig. 18. Take a number of turns, parallel to each other, through the eye of the block-ſtrap and round any object, as a maſt, yard, &c. and, to ſtrengthen the laſhing, take ſeveral croſs turns with the end, and make faſt.

LINES, USED IN THE RIGGING-LOFT. Cordage ſmaller than ropes, and formed of two or more fine ſtrands of hemp; as HOUSE-LINE, made of three ſtrands, uſed to ſeiſe blocks into their ſtraps and the clues of ſails, and to marl the ſkirts of ſails to their bolt-ropes, &c. LOG-LINE, made of three or more ſtrands, and uſed for the log, &c. MARLINE, made of two ſtrands and uſed for the ſame purpoſes as houſe-line.

MARLING, Pl. 1, fig. 29, is winding any line round a rope and ſecuring every turn by a hitch, ſo that they may be independent of each other, and remain fixed, ſhould either be cut through by friction. It is principally uſed to fix on the clues of ſails and top-brims of top-ſails. Splices are marled down for ſerving with ropeyarn or twine.

MATS are made thus: Pl. 3, fig. 34. A ſmall rope or line is firſt tightly extended, horizontally, at nearly a man's height, and made faſt at each end, acroſs which foxes are placed in a regular manner and hang down from their middles; then, beginning with the firſt next the left hand, it is croſſed or plaited with that which is next the right hand, then taking that which was to the right hand and croſſing it with its next, and ſo on in ſucceſſion. This will make the mat downwards; and, when finiſhed to the length intended, it is begun again at top till its breadth is completed. Each twiſt is to be preſſed tight, and each couple of foxes is to be twiſted together at the bottom, to keep in their twiſts till the next in ſucceſſion are interwoven with them. When the mat is completed to its depth, the bottom is ſelvaged, by placing another ſmall rope or line acroſs in a tight manner, ſimilar to the head-line, round which one fox is half-hitched while the next fox is laid up at the back of it, and ſo on alternately.

When mats are thrummed, it is thus performed: Short pieces of the foxes are thruſt under every other overlay of the foxes in every other row. To receive the thrums, a hole is opened with a ſmall marline-ſpike: the thrums are afterwards cut off to an equal length, and their ends opened.

MOUSING A HOOK. Taking ſeveral turns of ſpunyarn round the back and point of a hook, and faſtening it, to prevent its unhooking.

MOUSING A MESSENGER. Open every other ſtrand for three ſtrands, and thruſt in the ends of a ſmall rope or ſtrand, in order to form a projection on the ſurface to prevent the nippers from ſlipping. The ends are not cut off cloſe. Pl. 2, fig. 12.

NETTING, Pl. 1, fig. 34, 35, is made by laying parallel to each other a number of ſmall ropes of equal lengths, and by ſeiſing each two together at certain diſtances, taking care that every ſeiſing be between the ſeiſings of the ropes immediately preceding. Or, it is made by placing nails in the houſe-floor, deck, &c. to regulate the ſize of the meſhes, and ſeiſing the ropes together cloſe to the nails.

To NIPPER or NIP ropes, is to ſtop them with ſeveral turns of rope-yarn, or ſpunyarn. round each, and the ends made faſt.

PAINTER. See Boats Ropes.

PARBUCKLE. Pl. 3, fig. 1. A contrivance to hoiſt or lower bodies, by faſtening the bight of a rope over a fixed object, and paſſing the ends of it under the body to be hoiſted, &c. They are then turned upwards towards the bight, and hauled upon or ſlackened as occaſion require.

PARCELLING, Pl. 3, fig. 21, long narrow ſlips of worn canvas, laid ſmoothly round a rope in ſpiral turns and well tarred. It is previouſly done when a rope is to be ſerved or a mouſe formed upon ſtays.

PARRAL. Of parrals there are four ſorts, viz. one ſort is formed of a ſingle rope, covered with ſpunyarn or leather, and having an eye ſpliced in each end; another ſort is formed of two ropes, Pl. 3, fig. 27, which reeve alternately through a rib and truck, and have an eye in one end; a third ſort, calculated to confine the jaws of a jib-boom to the maſt, Pl. 3, fig. 28, is formed of a rope which reeves through ſeveral trucks without ribs; and a fourth ſort is formed of a truſs, by which the yard may at any time be ſlackened from the maſt, or may be confined cloſely by tackles connected to their lower ends, which lead upon deck, and are moſt convenient for the lower yards. The firſt and ſecond ſorts are uſed for topſail and topgallant yards.

PARRAL-ROPES, prepared in the houſe, have an eye ſpliced in each end; are wormed, and ſerved with ſpunyarn from eye to eye; they are then doubled and cut aſunder in the bight. The end of one is thruſt through the upper hole in the ribs, and through the hole in the middle of the trucks, and ſo alternately. The other end is brought the reverſe way through the lower hole in the ribs and trucks.

PENDENTS. Bill-pendent, prepared on-ſhore, has a hook and thimble ſpliced in one end, and ſerved with ſpunyarn over the ſplice. — Brace-pendents, Pl. 6, fig. 5, 21, 22, 30, 36 to 38, 56, 57, 70, prepared on-ſhore, have an eye ſpliced in one end to the ſize of the yard-arm, and a ſingle block in the other end. The ſplices are ſerved over with ſpunyarn. — **Fish-tackle Pendent**, Pl. 3, fig. 25, prepared on-ſhore, has a large iron hook, with a thimble ſpliced in one end; and the ends of the ſplice tapered, marled down, and ſerved over with ſpunyarn. — **Fore and main tackle Pendents**, Pl. 5, fig. 4, 5, prepared on-ſhore, are wormed, parcelled, and ſerved with ſpunyarn, in the way of the cont-ſplice. They are then ſpliced in the middle, to the circumference of the maſt-head; have large thimbles ſpliced into the lower ends; Pl. 3, fig. 44; are then wormed, parcelled, and ſerved with ſpunyarn the whole length. Large ſhips having two pair of pendents to the main and fore maſts, the after-pendents are one foot longer than the foremoſt ones. **Guy-pendents**, Pl. 6, fig. 78, prepared on-ſhore, are doubled, and ſerved with ſpunyarn in the bight, one fathom in length. — **Main-stay-tackle Pendents**, Pl. 5, fig. 46, prepared on-ſhore, have an eye ſpliced in one end, and a double block in the other, and ſerved with ſpunyarn over the ſplices. — **Main-tackle Pendents** are the ſame as the fore-tackle pendents. — **Mizen-burton Pendents**, Pl. 5, fig. 6, prepared on-ſhore, have a cont-ſplice in the middle to the circumference of the maſt-head; thimbles ſpliced in the lower ends, and ſerved with ſpunyarn over the ſplices. — **Preventer-brace Pendents**, Pl. 6, fig. 79, prepared on-ſhore, are ſpliced through the ſtrap of the brace-pendent block; ſerved with ſpunyarn over the ſplice; and are left the length of the ſervice of the ſplice and length of the eye longer than the brace-pendent, with an eye ſpliced in the other end to the circumference of the yard-arm. — **Quarter-tackle Pendent**, Pl. 6, fig. 80, prepared on-ſhore, is ſpliced into the ſtrap of the double block; ſerved with ſpunyarn over the ſplice, and the other end whipt. — **Reef-tackle Pendents**, Pl. 6, fig. 47, 48, prepared on-ſhore, have a double block ſpliced in the end, and are ſerved with ſpunyarn over the ſplice. — **Rudder-pendents**, prepared on-ſhore, are doubled and cut in the bight; they have a hook and thimble ſpliced in one end, and are ſerved with ſpunyarn over the ſplice. — **Top-mast-burton Pendents**, Pl. 5, fig. 15, 16, are the ſame as mizen-burton pendents. — **Top-rope Pendents**, prepared on-ſhore, have a large iron thimble ſpliced in the lower ends; are marled over the ſplice in the rigging-houſe, and pointed when gotten on-board. — **Truss-pendents**, Pl. 6, fig. 30, prepared on-ſhore, are doubled and cut in the bight; they have an iron thimble ſpliced into one end, and are ſerved with ſpunyarn one third of the length. — **Vang-pendents**, Pl. 6, fig. 75, are doubled, and ſerved with ſpunyarn two fathoms long in the bight, and a double block ſpliced into each end, and ſerved with ſpunyarn over the ſplices. — **Winding-tackle Pendent**, Pl. 3, fig. 26, prepared on-ſhore, has an eye ſpliced in one of the ends; the ends put in three times, and cut off ſhort; the other end is whipt. — **Yard-tackle Pendents**, Pl. 6, fig. 15, 16, prepared on-ſhore, have an eye ſpliced in one end to the ſize of the yard-arm, and a double block in the other end. The ſplices are ſerved over with ſpunyarn.

PLAITING, Pl. 3, fig. 40. Braided cordage, made by rope-yarns, &c. twiſted together, and then laid one over the other alternately; or the end of a rope opened, and the ſtrands placed together in the ſame manner.

POINTING, Pl. 2, fig. 19, is tapering the end of a rope or ſplice, and working, over the reduced part, a ſmall cloſe netting, with an even number of knittles twiſted from the ſame, to prevent the end untwiſting, and to make it go more eaſily through a block, or hole. Half the knittles are firſt laid down, leaving out every other one; then three turns of the warp is taken round them: then take up thoſe knittles, and lay down the other half, and take three turns of the warp round them; and ſo on, alternately, until the length be once and a half the circumference of the rope. The end and upper part of the knittles are then round-ſeiſed, and ſnaked with twine, &c.

POINTS. Short pieces of braided cordage, plaited together as gaſkets are; beginning in the middle with nine foxes, and tapering to five at the ends, and from one fathom and a half to one fathom in length. They are uſed to reef the courſes and topſails.

PREVENTER-BREECHING. See GUN-TACKLES in the following part.

PUDDENING OF ANCHORS, prepared on-ſhore. Worn hawſer-laid rope is cut into lengths three times the diameter of the ring; and as many of theſe lengths as will cover the ring, which is about thirteen; Pl. 4, fig. 2. The ring is firſt chocked upright, by wedging it in the hole of the ſhank; then well tarred, and parcelled with worn canvas, twice round, and marled down cloſe with ſpunyarn. The turns of the puddening are then paſſed, one turn and a half each way from the middle of the ring; then hove tight by a heaver, and well ſeiſed with two quarter and two end ſeiſings, that are ſnaked all round. The ends remaining are opened out, and payed all over with a good coat of tar.

PUDDENING OF MASTS AND YARDS; Pl. 3, fig. 29, 31. A ſmall rope, in length twice the diameter of the maſt or yard, has an eye ſpliced in each end, then ſtretched, and parcelled with worn canvas, woolded round with rope-yarn, tapering towards the ends, and holding a large ſubſtance in the middle; then ſerved over with ſpunyarn, and ſometimes pointed. It has a laniard ſpliced in one eye, and fixes to the maſt or yard, by paſſing the laniard alternately through the eyes, and ſtopping the end. When uſed on maſts they are to ſuſtain the weight of the yards, if an accident happens to the rigging; and, on the yards, to prevent the ſheets from chafing the rope-bands, &c.

QUOINS. See GUN-TACKLES.

RACKING A TACKLE. Faſtening together the fall of a tackle, or any two ropes, by paſſing two or more croſs turns with ropeyarn round each part, and as many round turns above them; making faſt the ends with a reef-knot.

RELIEVING-TACKLES. See GUN-TACKLES.

ROPE-BANDS differ from gaſkets only in their length, being from ſeven to nine feet long.

ROPES. BUOY-ROPES are prepared on-ſhore, Pl. 4, fig. 8, 9. One end is unſtranded for one yard in length, ſtopped with rope-yarn, and one of the nine ſmaller ſtrands taken out of each of the three larger ſtrands, which are then laid together again. The three ſmaller ſtrands are double-walled right-handed cloſe to the ſtop, then laid up their cont-lines, and three fathoms next the knot wormed, parcelled, and ſerved with ſpunyarn. When two or more buoy-ropes are knotted at the ſame time, after the knot is formed on each, the ends are ſpliced together, and the other ends made faſt to tackles, and hove tight, which ſtrains the knots cloſe and firm. If a ſingle buoy-rope be knotted, after the knot is made, make a bend at one end and attach a tackle to it, and make faſt the other end; then bowſe upon the tackle, and cloſe the knot as before.

RUNNERS OF TACKLES, Pl. 5, fig. 58, prepared on-ſhore, have a double block ſpliced in one end, and ſerved with ſpunyarn over the ſplice, and the other end whipt.

SEISING is joining together two ropes, or different parts of one, with ſmall rope, line, or ſpunyarn, by taking ſeveral cloſe turns round them, from ſix to ten, according to the ſize of the rope; they are ſtrained tight. The lower turns have always one more than the riding or upper turns; two turns are taken acroſs the ſeiſing, between the two ropes ſeiſed; the end is taken under the laſt turn, hove tight, and knotted, cloſe to the jambing turn, if large, with a wall-knot, crowned; and, if ſmall, with an overhand-knot, and cut off. Seiſings to the double ſtraps of blocks are croſſed each way with two turns. Pl. 3, fig. 3, 4, 12, 17, 19, &c.

A SELVAGEE is ſeveral ropeyarns placed together, and marled together with ſpunyarn, in the form of ſlings; Pl. 3, fig. 48. It is uſed to attach the hook of a tackle to any rope, ſhroud, or ſtay, to extend them, by taking two or more turns round the ſame, and hooking in the bights.

SENNIT is braided cordage, made by plaiting from five to thirteen rope-yarns together, one over the other, according to the ſize and length, always keeping an odd yarn.

SERVING, Pl. 3, fig. 22, is encircling a rope with line or ſpunyarn, &c. to keep it from rubbing and chafing. The end of the ſpunyarn, for ſervice, is placed under the two or three firſt turns, to keep it faſt; then two turns are taken round the rope and mallet, on each ſide of and round the handle,

handle. The mallet is then gradually turned round the rope by its handle, while another perſon paſſes the ball of ſpunyarn; and this is continued until the rope is covered the length required. When the mallet is within a few turns of the end, take the turns off the mallet and paſs them by hand, and heave the end well through, where it is made faſt, as at firſt.

SHEEP-SHANK, Pl. 1, fig. 26, is made to ſhorten backſtays, &c. by bending part of the backſtay, &c. in three parts, and taking a half-hitch over the bights.

SHROUDS, prepared on-ſhore. The LOWER SHROUDS; Pl. 5, fig. 7, 8, 9; and Pl. 1, fig. 27. The cablet is warped round two iron fids, fixed in the floor, as diſtant from each other as the firſt warp is long. The length is the diſtance from the top of the bolſters at the maſt-head to the foremoſt dead-eye. One end of the cablet is made faſt to the lower fid, and paſſed round the upper fid; and ſo on, alternately, one turn cloſe to the back of the other, and each hauled tight by hand. The additional length, gained by the turns lying round each other, is ſufficient for the lengthening of each pair of ſhrouds, as they rake aft. When the whole gang of ſhrouds are warped out, the bights at the lower end are cut through in a ſtrait direction with the fids.

The upper bights are deſigned for the eyes, and are marked round the middle, beginning, at the inner one, with one piece of ſpunyarn knotted, two for the ſecond; and ſo on for the number required.

The outer turn is called SWIFTERS; and they are left four or five feet at each end longer than the ſhrouds, and have an eye ſpliced in them the circumference of the maſt-head.

The ſhrouds, when cut to their length, are gotten up and ſtretched thus for worming: at the end of each length is made a bend; one end is paſſed through a pair of ſlings, fixed round a poſt, at the lower end of the houſe, and the other end through the ſtrap of a treble block, and a fid thruſt through each bend. The treble block is connected by its fall to a double block, laſhed round a poſt, at the upper end, thus: the ſtanding-part of the fall is faſtened to the becket, at the arſe of the double block; then reeved through the firſt ſheave of the treble block, then through the firſt ſheave of the double block on the ſame ſide, and ſo on alternately, and the fall carried and attached to the windlaſs by three or four round turns. The windlaſs is put in motion by men, with levers or handſpecs, and each length thus ſtretched, hand-tight.

The rope uſed for the fall is commonly five-inch white rope.

All ſhrouds are wormed with double ſpunyarn, one-fourth the length from the centre to the eye, on each ſide; but the fore-leg of the foremoſt pair is wormed all the way to the end.

Each length, after being wormed, is hove out by the ſame purchaſe, till each pair has acquired, by ſtretching, once and a half the length of the eye; and ſhould remain on that ſtretch twenty-four hours before the ſervice is laid on.

Shrouds are wormed before they are hove out to lengthen, becauſe the worming of cable-laid ropes increaſes, in tenſion, with the rope; and thereby draws ſmooth and even into the cont-line.

The eyes of all ſhrouds are parcelled with worn canvas, well tarred; about one fathom and a half on each ſide of the middle, for large ſhips, and proportionably for ſmaller; and then ſerved with ſpunyarn one-fourth of their length: each turn of the ſerving is laid cloſe, and ſtrained tight round, to prevent the water penetrating. The fore-leg of the foremoſt pair of ſhrouds is ſerved the whole length.

Swifters, when ſtretched, have the length of the ſplice ſet off on each ſide of the middle; and likewiſe the length of the eye, or circumference of the maſt-head. The latter is parcelled and ſerved as above. They are then cut aſunder in the middle, and ſpliced to the circumference of the maſt-heads; then got on the ſtretch, and ſerved over the ſplice one-fourth of the length.

The bights of ſhrouds are ſeiſed together to the circumference of the maſt-heads; the ſeiſing of the firſt ſhroud is put on below the bolſter, or treſtle-trees, with ſeven under and ſix riding turns, and a double croſs turn over all. The ſeiſing of each ſhroud is to be laid its breadth below the next, and clear of each other, to prevent chafing.

Brigs have four pair of ſhrouds forward, and the foremoſt ſhroud and pendent are in one.

TOPMAST-SHROUDS, Pl. 5, fig. 17, 18, 19, and Pl. 1, fig. 28, are warped out on the floor, as the lower-ſhrouds are, and fitted to the circumference of the topmaſt-head.

In the foremoſt-ſhrouds, on each ſide, is ſeiſed a ſiſter-block, below the futtock-ſtaff.

TOPGALLANT-SHROUDS, Pl. 5, fig. 33, 34, 35, are fitted as the topmaſt ſhrouds are, except that, inſtead of a ſiſter-block, a thimble is ſeiſed in the two foremaſt pair on each ſide, cloſe up to the hounds.

BOWSPRIT-SHROUDS, Pl. 5, fig. 8, prepared on-ſhore, are made of cable-laid rope. They have an iron hook and thimble ſpliced in the inner ends, and are ſerved over the ſplice.

SLINGS AND STRAPS, for the lower yards, prepared on-ſhore. The ſtrap has an eye ſpliced in each end, with a long and ſhort leg, to the circumference of the yard, and ſerved with ſpunyarn from eye to eye, with a thimble ſeized in the bight.

Slings have an eye ſpliced in one end: then wormed, parcelled, and ſerved almoſt the whole length. The ſpritſail-ſlings are wormed and ſerved with ſpunyarn.

SNAKING. Pl. 2, fig. 13. A ſort of faſtening to confine the outer turns of ſeiſings, &c. with the ſame ſize rope, line, ſpunyarn, &c. by paſſing it acroſs and under the outer turns at angles.

SNOTTER. A ſhort rope, ſpliced together at the ends and ſerved with ſpunyarn, or covered with hide; it is ſeiſed to the ſize of the maſt, leaving a bight to fit the lower end of a ſprit, which it confines to the maſt.

A SPANISH WINDLASS is formed of an iron bolt, placed in a hole, which is hove round by a woolder that acts as a lever for turning it round. It is uſed to ſtretch ſmall rigging for ſerving, &c. Pl. 3, fig. 38.

SPANS about the maſt, prepared on-ſhore, have a ſingle block ſpliced in one end, and ſerved with ſpunyarn the whole length, except what is left at the other end to ſplice in another block on-board.

Long and Short Spans, prepared on-ſhore, have a ſingle block ſpliced in each end, and the ſplices ſerved over with ſpunyarn. One end is finiſhed in the houſe, the other in the top, after they are hitched round the cap.

SPLICING. The Cont-splice, Pl. 2, fig. 1, 2, 3, forms an eye in the middle of a rope, &c. as the eye-ſplice doth at the end, by interlaying the ends between the ſtrands of the rope, &c. at certain diſtances from each other, ſo that the rope becomes double in the extent of the ſplice. This ſplice is uſed for pendents, or any thing that goes over the maſt-head with a ſplice; alſo for lead-lines, log-lines, and fiſhing-lines, where the ſhort ſplice would be liable to ſeparate. Eye-splice forms an eye, or circle, at the end of a rope, on itſelf or round a block, &c. Pl. 2, fig. 4, 5. The ſtrands are untwiſted, and their ends puſhed through intervals made in the ſtrands, by a fid or marline-ſpike, at that diſtance on the rope which the eye may require; obſerving to put the middle ſtrand through firſt, then paſs it over the ſurface of the ſecond ſtrand, and puſh it through the third: repeat the ſame with the two other ends, laying them fair aſunder. The ends of this ſplice are tapered, by gradually reducing the yarns, then placed ſmooth along the rope; then marled, and ſerved with ſpunyarn, round all blocks in the royal navy. Long Splice is made to rejoin a rope or ropes, intended to reeve in a block, without increaſing its ſize. Pl. 2, fig. 6, 7. The ends are opened from one half to a whole fathom in length, and placed cloſe together regularly one in the other; one ſtrand is then unlaid, and the oppoſite ſtrand laid up its intervals each way, and the two ſtrands knotted together at the ends and middle of the ſplice; the ends are then halved and puſhed under the next ſtrand. Short Splice, Pl. 2, fig. 8, 9, is made by untwiſting the ends of two ropes, or the two ends of one rope, and placing the ſtrands of one oppoſite to and between the ſtrands of the other: draw them cloſe together, and puſh the ſtrands of one under the ſtrands of the other, the ſame as the eye-ſplice. This ſplice is uſed for block-ſtraps, ſlings, &c. and the ends are tapered and ſerved. Tapered Splice, Pl. 2, fig. 10, 11, moſtly uſed on cables, is made by unlaying a certain length of each cable, then placing them together, and interplacing the ſtrands, as in the ſhort-ſplice, twice each way, and hauled tight each time; then inlay the ſtrands, or ends, ſucceſſively, and reduce them, by cutting away one ſtrand; then interplace the two remaining ſtrands, and reduce them to a ſingle ſtrand, which is again thruſt through, and cut off. The ſplice is then ſerved over with ſpunyarn, ſomething more than the whole length. Drawing-splice, Pl. 2, fig. 14, uſed on cables, is made by unlaying about three fathoms of the ends; then place them together, and make a ſhort ſplice: then leave about one fathom, and thence reduce each ſtrand to a long taper, by gradually cutting away as many yarns as neceſſary, and neatly point over the taper; then lay the ends up the cont-lines, and clap on a quarter-ſeiſing at each end of the ſplice, an end-ſeiſing at the beginning of the pointing, and a ſtop at the ends of the tails. This is the beſt ſplice for cables, as it may be readily taken aſunder. Another good method of making a Cable-splice is to put the ends in twice each way; then to pick out the ſtrands, worm part of them round the cable, and taper away the reſt, which ſhould be marled cloſe down; then clap on a good throat and two end-ſeiſings of ratline.

STANDING-BACKSTAYS, for topmaſts, Pl. 5, fig. 21, 24, 26, prepared on ſhore, are wormed, and ſerved with ſpunyarn, in the way of the top-brim. They are fitted as the ſhrouds are, except that the third pair is tongued together the circumference of the topmaſt-head: the tongue is a ſhort piece of rope of the ſame circumference as the ſtay, and is ſpliced into the ſtrands of the ſtay; the ends of the tongue are tapered, marled down, and ſerved over with ſpunyarn.—Standing-backstays, for topgallant-maſts, Pl. 5, fig. 36 to 38, prepared on ſhore, are fitted as the ſhrouds are; wormed, and ſerved in the way of the top-brim.

STANDING-LIFTS, Pl. 5, fig. 7, 10, prepared on-ſhore, have an eye ſpliced in one end, and are ſerved with ſpunyarn over the ſplice.

STAYS, Pl. 5, fig. 10, 14, prepared on-ſhore, for the lower-maſts, have an eye in one end, ſufficiently large to reeve itſelf through.

Each ſtay is got upon the ſtretch, and hove well out with the windlaſs, as the ſhrouds are; then wormed with ſpunyarn one-third of its length; and is hove out a ſecond time, till the middle ſtrand, or heart, is made to break in ſeveral places.

The mouſe, Pl. 1, fig. 42, made with ſpunyarn, in the ſhape of a pear, is then raiſed on the ſtay, at one-third of its length, by ſome; but, by others, two ſides of the maſt-head, added to twice the length of the treſtle-trees, gives the length from the eye to the mouſe. The ground of the mouſe, or the length from the ſhoulder, or upper part, to the beginning of the tail, is one-third the circumference of the ſtay; or elſe it is laid with as many turns in length as the ſhoulder is raiſed above the ſtay, which ſhould be in circumference three times that of the ſtay, and from that to diminiſh to the ſhape in the plate, by gradually leſſening the turns in the ſpunyarn: every turn of the ſpunyarn to be hove well tight with a large ſerving-mallet, and beat cloſe. Between the turns of the ſpunyarn are laid ſeveral ropeyarns, lengthways, and their ends brought back over the next turn from the ſhoulder which prevents their ſlipping. When all the turns are laid, it is parcelled over with worn canvas, well tarred, pegged on, and pointed over with inch or three-quarter rope; each knittle to be in length five times the circumference of the ſtay, to have an even number, and hove tight when paſſed. The ſhoulder of the mouſe muſt be covered with knittles, and their number diminiſhed as they are worked into the ſmaller parts. The ends of the knittles are ſtopped with ſpunyarn at the front with a ſecure ſeiſing. The warp to be marline, and the pointing continued the circumference of the ſtay for the length of the tail. The collar, the eye, and one fathom below the mouſe, are parcelled with worn canvas, well tarred, and ſerved over with ſpunyarn.

Stays, for the topmaſts, Pl. 5, fig. 28 to 32, prepared on-ſhore, are fitted as the lower-ſtays are. The collar is in proportion to the topmaſt-head.

Preventer-stays, Pl. 5, fig. 10, 12, 28, 30, the ſame as the ſtays.

Stays, for topgallant-maſts, Pl. 5, fig. 39 to 41, prepared on-ſhore, are cable-laid in large ſhips, and hawſer-laid in ſmall ones. The latter has an eye ſpliced in the upper end to the circumference of its maſt-head, and ſerved with ſpunyarn over the ſplice. The cable-laid is fitted with a collar, and mouſed, as any other ſtay.

STERN-LADDERS are made of cable-laid rope, thus: Pl. 1, fig. 32: double the rope, that it may be long enough to reach the water, nearly, from the upper part of the ſtern: then ſplice an eye in each end, or make an eye in the middle, by ſplicing the ends together, and a ſeiſing. The ſteps are commonly tree-nails, thruſt horizontally through the ſtrands of the rope on each ſide, ſixteen inches aſunder, and a ſcore is cut round the middle, for the concluding-line, or middle rope, which is faſtened round every ſtep with a clove-hitch in the ſcore. The ladders are laſhed to an eye-bolt in the upper part of the quarter-piece, or ſtern, one on each ſide.

STOP is a temporary ſeiſing, and performed ſimilarly. When uſed to ſtop worming, it is ſnaked.

STOPPERS, DECK and BITT, Pl. 1, fig. 10, 15, prepared on-ſhore, are divided into ten ſhort and two long ſtoppers. The two long ſtoppers, from a firſt rate ſhip to a ſloop, are cut ſixteen feet; and, when knotted, to be twelve feet ſix inches. The ſhort ſtoppers are each cut twelve feet ſix inches; to be, when knotted, eight feet three inches long. One end of each ſtopper has a double wall-knot, and the ends led up through the middle, and whipt with ſpunyarn; the other end is only whipt with ſpunyarn.

STRAPPING OF BLOCKS, prepared on-ſhore. The whole length of all the different ſizes of block-ſtrapping is got upon the ſtretch, and hove out tight for worming and ſerving; it is then wormed and ſerved, and cut into ſhorter lengths, to ſuit the different blocks.

The ſtrapping of jear-blocks is wormed, parcelled, and ſerved. Strapping of four inches diameter, and above, is wormed and ſerved; and all under four inches is only ſerved with ſpunyarn, except the ſpritſail-brace, bunt-line, and leech-line, blocks, that are laſhed under the tops, which are only ſerved with ſpunyarn over the ſplice, and the tail left half a fathom in length.

Jear-blocks are double ſcored; and the double and treble blocks are ſtrapped with a double ſtrap, thus: it is ſpliced together at the ends, and, when doubled, to be the ſize of the block and circumference of the yard. It is then doubled, and the block ſeiſed in the bight, with a long and ſhort leg; the ſplice lying in the arſe of the block. Pl. 3, fig. 3, 5, 13.

The ſcores of all blocks are to be well tarred, and the pin and ſheave examined, before the ſtrap is put on. Pl. 3, fig. 10, 11. The block is ſet well into the ſtrap with wedges, thus: the four parts are frapped together with ropeyarn under the block, with a chock between, and the wedges are ſet between the breaſt of the block and chock. Then the ſtrap is nippered, with a heaver, round the block; the wedges, chock, and frapping, taken away, and the block hung upon the ſtake-head, or poſt, and the ſtrap well ſeiſed together, cloſe under the block, with nine under and eight riding turns, every turn ſtrained tight round by a heaver, and croſſed each way with two turns.

Jear-blocks, for the maſt-heads, are ſtrapped with long eyes, to receive many turns of the laſhing, and the block is ſeiſed into the ſtrap, as before; as are all ſeiſing-blocks, in proportion to their ſizes. The ſtraps are cut agreeably to the following table, for ſingle-ſcored blocks; double-ſcored blocks requiring twice that length.

A TABLE OF THE DIMENSIONS OF STRAPS FOR LASHING AND SEISING BLOCKS.

Size of the Blocks.	*Circumf. of the Straps.*	*Length of the Straps.*		*Size of the Blocks.*	*Circumf. of the Straps.*	*Length of the Straps.*	
Inches.	Inches.	Ft.	In.	Inches.	Inches.	Ft.	In.
17	5	7	4	10	3	3	9
16	4½	6	8	9	2½	3	4
15	4	6	0	8	2½	3	0
14	3½	5	4	7	2½	2	9
13	3½	4	11	6	2	2	6
12	3½	4	6	5	1½	1	9
11	3	4	2	4	0¼	1	6

Blocks, ſtrapped with eyes or thimbles ſpliced in the ends, are ſeiſed tight into the bight, and the legs left long enough to laſh through the eyes, round a maſt, yard, &c. as the topſail clue-lines, clue-garnets, and ſpritſail clue-lines, &c. Pl. 3, fig. 4.

Blocks, ſtrapped with a thimble or hook and thimble, have the ſtrap ſpliced together at the ends. The block is fixed in one bight, for the ſplice to lay on the arſe of the block, and the thimble in the other bight; the ſeiſing is put on, between the block and thimble, with eight under and ſix riding turns, according to the ſize of the block, each turn ſtrained tight by a heaver; the turns double croſſed, and the end ſtopped with a wall-knot crowned. Pl. 3, fig. 14.

All hook-blocks (unleſs for luff-tackles) have the ſtrap between the ſeiſing, and the thimble left the length of the block.

Blocks, ſtrapped with double tails, are fixed in the ſtrap, ſimilar to blocks with eye-ſtraps; and thoſe with a ſingle tail are ſpliced in, and ſerved with ſpunyarn over the ſplice. Pl. 3, fig. 2, 6, 7.

Girtline-blocks are ſtrapped in the houſe, with a laſhing eye, Pl. 3, fig. 8, and the girtlines reeved.

SWIFTERS. See Shrouds. Thoſe for the bars of capſtans are reeved through holes in the extremities of the bars, ſo as to ſtrain them firmly together like the ſpokes of a wheel.

TACKLE. The number of parts of the fall of a tackle is more or leſs, in proportion to the effects intended to be produced. That part of the fall which is faſtened to one of the blocks is called the Standing-part, and the other parts of it are called the Running-part. Pl. 2, fig. 16, 18.

Tackles are uſed to ſtretch the rigging in the houſe, &c.; to raiſe or remove weighty bodies; to ſupport the maſts, extend the rigging, or expand the ſails. They are either moveable, as connecting with a runner, or have one part fixed to an immoveable ſtation, by a hook, laſhing, &c.

A tackle is a convenient kind of purchaſe, but ſubject to much friction. Its power will be (the friction not conſidered) as the number of parts of the fall that are applied to ſuſtain the weight. If a tackle conſiſts of a double and a ſingle block, as Pl. 2, fig. 18, and the weight to be hoiſted is hung to the ſingle block, there will be four parts of the fall; and, the weight reſting upon four ropes equally ſtretched, each muſt bear the ſame part of the weight. Thus, ſuppoſe the weight hung to the ſingle block be four hundred, then one hundred applied to the hauling part of the fall will ſuſpend it; and, if as much more power be applied as will overcome the friction, it will purchaſe the weight: but, had the weight been hooked to the double block, it would have reſted on three ropes only, each of which would bear a third of the weight; therefore a third of the weight, being applied to the hoiſting part of the fall, would ſuſpend the weight when hooked to the double block; and as much more power being applied as will overcome the friction would purchaſe the weight.

Ropes, if tight laid, will not eaſily bend round ſmall ſheaves, but will take up a conſiderable part of the power to force them into their proper direction; hence it follows, that blocks with ſmall pins, large ſheaves, and ſlack-laid ropes, are the beſt materials to obviate friction and make tackles with.

The blocks that are fixed, commonly called leading blocks, are only for the convenience of turning the direction of the fall; they add nothing to the power of the purchaſe, but, on the contrary, deſtroy ſo much as is neceſſary to overcome their friction, and are therefore to be avoided as much as poſſible.

It may be here remarked, that the blocks of all the ſtanding and running rigging are ſtrapped and prepared in the houſe.

The ANCHOR-STOCK TACKLE is compoſed of a double block and a ſingle block, ſtrapped, with a hook and thimble; Pl. 3, fig. 9. BOOM-TACKLES are compoſed of double and ſingle blocks, ſtrapped, with tails. BOWLINE-TACKLE is compoſed of a long tackle and a ſingle block, ſtrapped, with a hook and thimble; Pl. 2, fig. 18. BURTON-TACKLES are compoſed of double and ſingle blocks; ſee the ſingle block, Pl. 3, fig. 49; and are uſed with pendents. A FISH-TACKLE is compoſed of a long tackle and a ſingle block, ſtrapped, with eyes, and is uſed with a pendent; Pl. 3, fig. 25, and Pl. 4, fig. 4. JIGGER-TACKLES are compoſed of double and ſingle blocks, ſtrapped, with tails. A LONG TACKLE is compoſed of two blocks, a long-tackle block and a common ſingle-hook block. The long-tackle block is double, but it reſembles two ſingle blocks joined together at their ends; Pl. 2, fig. 18. LUFF-TACKLES are compoſed of double and ſingle blocks, ſtrapped, with a hook and thimble. OUTHAULER-TACKLE is compoſed of two ſingle blocks, ſtrapped, with tails. QUARTER-TACKLES, Pl. 6, fig. 80, are compoſed of a double block, ſtrapped, with eyes, and a ſingle block with a hook and thimble, having a long ſtrap like fig. 49, Pl. 3.

REEF-TACKLES, Pl. 6, fig. 47, 48, are compoſed of two double or two ſingle blocks; one block is ſpliced into a pendent, and the other is ſtrapped, with an eye. RELIEVING-TACKLES are the ſame as luff-tackles. RIDGE-TACKLE is compoſed of a double block and ſingle block, ſtrapped, with an eye. ROLLING-TACKLES are the ſame as luff-tackles. RUDDER-TACKLES are compoſed of long-tackle blocks and ſingle blocks, ſtrapped, with hooks and thimbles. RUNNER-TACKLES are compoſed of double and ſingle blocks and a pendent; the lower blocks are ſtrapped, with a hook and thimble; Pl. 3, fig. 49. STAY-TACKLES, MAIN AND FORE HATCH, are compoſed of double and ſingle blocks, ſtrapped, with hooks and thimbles, except when the blocks are ſpliced into a pendent; the ſingle blocks have a long ſtrap, like Pl. 3, fig. 49. The pendent formerly travelled on the ſtay by iron thimbles; but this is now diſcontinued in the royal navy, as they much injured the ſtay by the friction. STAYSAIL-STAY TACKLES are compoſed of double and ſingle blocks; the lower blocks are ſtrapped, with a hook and thimble. SHIFTING-BACKSTAY TACKLES are compoſed of double and ſingle blocks, ſtrapped, with a hook and thimble. TOPMAST-STAY and PREVENTER-STAY TACKLES are compoſed of long-tackle blocks and ſingle blocks; the lower blocks are ſtrapped, with a hook and thimble. FORE TOPGALLANT-STAY TACKLE is compoſed of a double and a ſingle block. TACK-TACKLE is compoſed of a double and a ſingle block, ſtrapped, with hooks and thimbles. The TOP-TACKLE is compoſed of double or treble blocks; Pl. 2, fig. 16. It is ſtrapped with hook and thimble, and hooks to the top-rope pendent. TRUSS-TACKLES are compoſed of two double blocks, ſtrapped, with hooks and thimbles to hook to the truſs-pendent; Pl. 5, fig. 4. WINDING-TACKLE is compoſed of a four-fold and a treble block, or a treble and a double block, ſtrapped, with eyes, and toggles to the winding-tackle pendent; Pl. 3, fig. 25. YARD TACKLES are compoſed of double and ſingle blocks; the double blocks are ſpliced into the lower ends of pendents, and the ſingle blocks are ſtrapped, Pl. 3, fig. 49, with hooks and thimbles.

TACKS, MAIN AND FORE, prepared on-ſhore, are cable-laid, and are tapered in the making. The largeſt end is opened out long enough to heave the knot cloſe together: the knot is double walled and crowned; the ends are thruſt through the walling, then ſcraped down, ſerved over with ſpunyarn, and wormed, parcelled, and ſerved with ſpunyarn one-fourth of the whole length.

THRUMMING. Interplacing ſhort pieces of thrums, or ropeyarn, in a regular manner, into matting, through intervals made by a fid. Pl. 3, fig. 34.

TIES, for lower-yards, prepared on-ſhore, are wormed, parcelled, and ſerved with ſpunyarn for three-fourths of their length. SINGLE TIES, for the topſail-yards, prepared on-ſhore, have a double block ſpliced in the lower end, and are ſerved with ſpunyarn over the ſplice.

TONGUE. A ſhort piece of rope ſpliced into the upper part of ſtanding-backſtays, &c. to the ſize of the topmaſt-heads: it is ſerved over with ſpunyarn, and is uſed to keep them open to the ſize of the maſt-heads.

TRAIN-TACKLES. See GUN-TACKLES.

WHIP. A ſmall ſingle tackle, formed by connecting the fall to a ſingle block, or with two blocks, the one fixed and the other moveable: it is uſed to hoiſt light bodies out of the hold, &c.

WHIP-UPON-WHIP. Pl. 4, fig. 10. The greateſt purchaſe that can be gained by blocks, which is formed by fixing the end of one whip upon another whip-fall. Thus two ſingle blocks will afford the ſame purchaſe as a tackle, having a double and a ſingle block, and with much leſs friction. This purchaſe ſhould therefore be uſed whenever the length of the hoiſt will admit of it. To topſail and topgallant yards, that hoiſt with a ſingle tie, there is ſufficient room to apply this purchaſe as haliards, which will overhaul with great facility.

WHIPPING, to prevent the unravelling of the end of a rope. Pl. 2, fig. 13. Take ſeveral turns of ſpunyarn, &c. round the end of a rope, and lay one end under the four firſt turns and the other end under the four laſt turns, and haul tight. Another method is, to knot every turn on the contrary ſide of the rope, hauling it tight, and finiſhing the laſt turn with a reef-knot.

WOOLDINGS, round maſts, or bowſprits, prepared on-ſhore, are performed by a machine, called a horſe, made with two cheeks of oak plank, and a ſmall windlaſs in the middle: one end of the cheeks reſts upon the ground, the other againſt the maſt or bowſprit, being hollowed to fit their convexity. The number of turns of each woolding is from thirteen to fifteen. The firſt turn is whipt at the end with ſpunyarn, and nailed to the maſt or bowſprit with three nails, and a leather button under the head of each nail. The turns are paſſed together ſingly, and every turn hove tight, by the windlaſs being made faſt to the middle, with a hitch round an iron pin, and then hove with two levers, or handſpecs, one at each end. Every turn, when hove tight, is faſtened with a nail and leather button, each nail being regularly below the other to the middle turn, and then above. The number of wooldings on a main-maſt are from ten to twelve, according to its length, or one woolding between every hoop. The fore-maſt has one woolding leſs than the main-maſt. Mizen-maſts and bowſprits have one woolding under the hounds and near the outer end of the bowſprit.

WORMING. Pl. 2, fig. 21. Wind a ſmall rope in the cont-lines of the ſtrands of cables, ſhrouds, or ſtays; and ſpunyarn in thoſe of ropes four inches in circumference and above. The firſt end of the worming is ſecurely ſtopped; it then fills one interval, or cont-line; and, when arrived at the end of the length intended to be ſerved, it is there ſtopped; then laid back into the ſecond interval; and ſo on ſucceſſively, ſtopping it at the ends. When worming is wanted to be cut without waſte, obſerve this general rule. Once the length of the ſervice multiplied by the number of ſtrands, or intervals, and one-third more added, gives the length of the worming. — Example. Twelve fathoms of ſervice, in a four-ſtrand rope, will take ſixty-four fathoms of rope for worming; and, for a three-ſtrand rope, forty-eight fathoms.

THE FOLLOWING ARTICLES AND THEIR SPECIFIC QUANTITIES ARE ALLOWED FOR PREPARING THE RIGGING IN THE HOUSE.

Names of the Articles.		110 & 100 *Guns.*	98 & 90 *Guns.*	80 *Guns.*	74 *Guns.*	64 *Guns.*	50 & 44 *Guns.*	38 *Guns.*	36 *Guns.*	32 *Guns.*	28 *Guns.*	24 *Guns.*	22 & 20 *Guns.*	16 & 14 *Guns.*	*Brig.*
Spunyarn - - - - - - -	Cwt. —	86	84	80	82	80	70	70	70	68	64	58	52	45* 40	18
Tarred Lines - - - - -	No. —	36	36	36	36	36	30	30	30	26	24	23	22	20	10
Tarred Marline - - - -	lb. —	65	65	65	65	65	50	50	50	48	42	39	36	32	26
Worn Canvas - - - -	Yds. —	650	600	600	600	600	500	515	500	480	440	395	350	300	180
Tar - - - - - - - - - -	Barrels —	3½	3½	3½	3½	3½	2	2	2	2	2	2	2	1½	1
Tallow - - - - - - - - -	lb. —	88	86	84	84	82	70	70	70	66	62	59	56	50	30
Woolding-Nails - - - -	No. —	1000	1000	900	1000	850	700	700	700	650	640	620	600	500	—
Old Leather Buckets -	No. —	4	4	4	4	4	3	3	3	3	3	3	3	2	—
Ordinary Twine - - -	lb. —	4	4	4	4	4	3	3	3	3	2½	2	2	2	2
Mousing for Main, Log-Lines	No. —	18	18	18	18	18	15	15	15	14	14	14	14	13	10
Fore, Mizen, and Rope	1-Inch	216 Fm	216	216	216	210	180	180	180	175	170	168	166	160	—
Preventer, Stays	¾-Inch	150 Fm	150	150	150	145	130	130	130	125	120	118	116	110	100

* If 6 pair of fore and main shrouds, 45 cwt is allowed; if but 5 pair, only 40 cwt.

PRICES

ALLOWED IN THE

KING's YARDS

FOR FITTING A SET OF RIGGING ON SHORE TO A SHIP OF EACH CLASS, (LABOUR ONLY.)

For ſhips of 100 guns	£98
90	97
80	97
74	97
64	87
50	73
44	73
38	71
36	67
32	59
28	51
24 and 20	51
Sloops of 300 tons and upwards	36
Brigs from 300 to 400 tons	26
200 to 300	25
Cutters	14

EXPLANATION OF THE REFERENCES ON THE PLATE DELINEATING THE STANDING-RIGGING OF A TWENTY-GUN SHIP.

1 Gammoning.
2 Bobstays.
3 Bowsprit-shrouds.
4 Fore-tackle pendents.
5 Main-tackle pendents.
6 Mizen-burton pendents and tackle.
7 Fore-shrouds.
8 Main-shrouds.
9 Mizen-shrouds.
10 Fore-preventer stay.
11 Fore-stay.
12 Main-preventer stay.
13 Main-stay.
14 Mizen-stay.
15 Fore-topmast burton pendents and tackles.
16 Main-topmast burton pendents and tackles
17 Fore-topmast shrouds.
18 Main-topmast shrouds.
19 Mizen-topmast shrouds.
20 Fore-topmast breast backstay and runner.
21 Fore-topmast standing backstay.
22 Fore-topmast shifting backstay.
23 Main-topmast breast backstay and runner.
24 Main-topmast standing backstay.
25 ———————— shifting backstays.
26 Mizen-topmast standing backstay.
27 ———————— shifting backstay and runner.
28 Fore-topmast preventer stay.
29 ———————— stay.
30 Main-topmast preventer stay.
31 ———————— stay.
32 Mizen-topmast stay.
33 Fore-topgallant shrouds.
34 Main-topgallant shrouds.
35 Mizen-topgallant shrouds.
36 Fore-topgallant standing backstays.
37 Main-topgallant standing backstays.
38 Mizen-topgallant standing backstay.
39 Fore-topgallant stay.
40 Main-topgallant stay.
41 Mizen-topgallant stay.
42 Martingal-stay.
43 Bowsprit-horse.
44 Fore-stay tackle.
45 Main-stay tackle.
46 Main-stay tackle pendent.
47 Fore-futtock shrouds.
48 Main-futtock shrouds.
49 Mizen-futtock shrouds.
50 Stay-tackle tricing-lines.
51 Futtock-stave.
52 Ratlings.
53 Catharpin-legs.
54 Bobstay and forestay collars.
55 Jib-horses.
56 Ensign-haliard.
57 Martingal.
58 Runners of tackles, &c.

To prevent confusion of appearance in the plate of standing-rigging, the shrouds and backstays are represented only on the starboard side; but it must be remembered, that an equal number of them belongs to the larboard side. In ships from twenty guns downwards, the preventer-stays are sometimes placed under the stays; and to them the staysails are bent.

EXPLANATION OF THE REFERENCES ON THE PLATE DELINEATING THE RUNNING-RIGGING OF A TWENTY-GUN SHIP.

1 Jib-horses.
2 Jib guy-pendents and falls.
3 Spritsail-yard horses and stirrups.
4 ——— topsail-yard horses.
5 ——— brace pendents.
6 ——— braces.
7 ——— lifts, standing.
8 ——— haliards.
9 Spritsail-topsail braces.
10 ——————— lifts, standing.
11 ——————— haliards.
12 Fore-yard horses and stirrups.
13 Main-yard horses and stirrups.
14 Cross-jack horses.
15 Fore-yard tackle pendents.
16 Main-yard tackle pendents.
17 Fore-yard tackles.
18 Main-yard tackles.
19 Inner tricing-line to the main-yard tackle.
20 Outer tricing-line to the main-yard tackle.
21 Fore-brace pendents.
22 Main-brace pendents.
23 Fore lifts.
24 Main-lifts.
25 Tye of the fore-jeers.
26 ————— main-jeers.
27 Fall of the fore-jeers.
28 ————— main-jeers.
29 Nave-line of the fore-truss pendents.
30 ——————— main-truss pendents.
31 Fore-topsail yard horses and stirrups.
32 ——————— Flemish horses.
33 Main-topsail yard horses and stirrup.
34 ——————— Flemish horses.
35 Mizen-topsail horses.
36 Fore-topsail brace pendents.
37 Main-topsail brace pendents.
38 Mizen-topsail brace pendents.
39 Fore-braces.
40 Main-braces.
41 Fore-topsail braces.
42 Main-topsail braces.
43 Mizen-topsail braces.
44 Fore-topsail lifts.
45 Main-topsail lifts.
46 Mizen-topsail lifts.
47 Fore-topsail reef-tackle pendents.
48 Main-topsail reef-tackle pendents.
49 Fore-topsail tie.
50 Main-topsail tie.
51 Fore-topsail haliards.
52 Main-topsail haliards.
53 Fore-topgallant yard horses.
54 Main-topgallant yard horses.
55 Mizen-topgallant yard horses.
56 Fore-topgallant brace pendents.
57 Main-topgallant brace pendents.
58 Fore-topgallant braces.
59 Main-topgallant braces.
60 Mizen-topgallant braces.
61 Fore-topgallant lifts.
62 Main-topgallant lifts.
63 Mizen-topgallant lifts.
64 Fore-topgallant haliards.
65 Main-topgallant haliards.
66 Mizen-topgallant haliards.
67 Fore-royal haliard.
68 Main-royal haliard.
69 Pendent-haliard.
70 Cross-jack brace pendents.
71 ————— braces.
72 ————— lifts.
73 Gaff-throat haliards.
74 Gaff-peek haliards.
75 Vang-pendents.
76 Vang-falls.
77 Boom-topping lift.
78 Guy-pendent and tackle.
79 Preventer-brace pendents, used only in war.
80 Quarter-tackles and pendents.

EXPLANATION

EXPLANATION OF THE REFERENCES ON THE PLATE DELINEATING THE FORE-AND-AFT SAILS OF A TWENTY-GUN SHIP.

1 Jib.
2 Fore-topmast staysail.
3 Fore-staysail.
4 Main-staysail.
5 Main-topmast staysail.
6 Middle-staysail.
7 Main-topgallant staysail.
8 Mizen-staysail.
9 Mizen-topmast staysail.
10 Mizen-topgallant staysail.
11 Mizen.
12 Jib-downhauler.
13 —— haliards.
14 —— sheets.
15 —— stay.
16 —— outhauler.
17 —— inhauler.
18 Fore-topmast stay.
19 Fore-topmast staysail downhauler.
20 ———————— haliards.
21 ———————— sheets.
22 ———————— outhauler.
23 Fore-preventer stay.
24 Fore-staysail haliards.
25 ———— downhauler.
26 ———— sheets.
27 Main-staysail stay.
28 ———— haliards.
29 ———— downhauler.
30 ———— sheets.
31 Main-topmast preventer-stay.
32 ———— staysail-haliards.
33 ———————— downhauler.
34 ———————— brails.
35 ———————— tacks.
36 Main-topsail staysail-sheets.
37 Middle-staysail stay.
38 ———— haliards.
39 ———— downhauler.
40 ———— tacks.
41 ———— sheets.
42 ———— tricing-line.
43 Main-topgallant staysail-stay.
44 ———————— haliards.
45 ———————— downhauler.
46 ———————— tacks.
47 ———————— sheets.
48 Mizen-stay.
49 —— staysail-haliards.
50 ———— downhauler.
51 ———— brails.
52 ———— tacks.
53 ———— sheets.
54 Mizen-topmast stay.
55 ———— staysail haliards.
56 ———————— downhauler.
57 ———————— tacks.
58 ———————— sheets.
59 Mizen topgallant stay.
60 ———— staysail haliards.
61 ———————— downhauler.
62 ———————— tacks.
63 ———————— sheets.
64 Tack of the mizen-course.
65 Sheet of the mizen-course.
66 Throat brails }
67 Middle-brails } of the mizen-course.
68 Peek-brails }
69 Fancy-line.
70 Mizen-lacing.

EXPLANATION OF THE REFERENCES ON THE PLATE DELINEATING THE SQUARE-SAILS OF A TWENTY-GUN SHIP.

1 Fore-course.
2 Main-course.
3 Fore-topsail.
4 Main-topsail.
5 Mizen-topsail.
6 Fore-topgallant sail.
7 Main-topgallant sail.
8 Mizen-topgallant sail.
9 Fore-royal.
10 Main-royal.
11 Mizen-royal.
12 Driver.
13 Fore-studding-sails.
14 Main-studding sails.
15 Fore-topmast studding-sails.
16 Main-topmast studding-sails.
17 Fore-topgallant studding-sails.
18 Main-topgallant studding sails.
19 Spritsail-course.
20 Spritsail-topsail.
21 Foresail-sheets.
22 ——— tacks.
23 ——— leech-lines.
24 ——— bunt-lines.
25 ——— bowlines.
26 ——— bowline-bridles.
27 Main-sheets.
28 —— tack.
29 Mainsail leech-lines.
30 ——— bunt-lines.
31 ——— bowlines.
32 ——— bowline-bridles.
33 Fore-topsail bunt-lines.
34 ——— bowlines.
35 ——— bowline-bridles.
36 Main-topsail bunt-lines.
37 ——— bowlines.
38 ——— bowline-bridles.
39 Mizen-topsail bunt-lines.
40 ——— bowline.
41 ——— bowline-bridles.
42 Fore-topgallant bowlines.
43 ——— bowline-bridles.
44 Main-topgallant bowlines.
45 ——— bowline-bridles.
46 Mizen-topgallant bowline.
47 Fore-royal haliards.
48 Main-royal haliards.
49 Mizen-royal haliards.
50 Driver-haliards.
51 ——— sheet.
52 ——— downhauler.
53 Fore-studding sail inner-haliards.
54 Main-studding sail inner-haliards.
55 Fore-studding sail boom-guy.
56 ——— tacks.
57 ——— sheets.
58 Main-studding sail tacks.
59 Fore-topmast studding-sail downhauler.
60 Fore-topmast studding-sail tack.
61 Main-topmast studding-sail downhauler.
62 Main-topmast studding-sail tack.
63 Fore-topgallant studding-sail tack.
64 Main-topgallant studding-sail tack.
65 Spritsail clue-line.
66 ——— bunt-line.
67 ——— sheets.
68 ——— topsail-sheets.

RIGGING.

RIGGING.

PART III.

PROGRESSIVE METHOD OF RIGGING SHIPS.

WE now preſume that the Reader, by his peruſal of the two foregoing parts, has made himſelf ſo well acquainted with the contents of the engravings, as to render many references to them unneceſſary. We have, therefore, in this part, generally avoided a repetition of them; as, otherwiſe, they would have diſturbed, very conſiderably, the connexion of the deſcription.

THERE is no one undeviating mode which is purſued in the progreſſive rigging of ſhips. It is an operation which muſt at all times depend upon the time allotted for its performance and the neceſſity for immediate fitting. The nature of it, however, is ſuch, that many parts may be advancing at the ſame time; but the uſual method, where extreme expedition is not required, is the following:

Firſt, rig the bowſprit and the ſpritſail-yard; then get the lower rigging over the maſts. Next, rig out the jib-boom and ſpritſail-yard, and get up the top-maſts and their ſhrouds: then get on board and rig the fore, main, and croſs-jack, yards; then the topſail-yards; get up the topgallant-maſts, with their rigging and yards; and, laſtly, the mizen.

In the following treatiſe the rigging is accordingly taken in the order; but, to give a more clear view of the whole, we here prefix a ſummary of the different operations, in their regular and minute progreſſion.

BOWSPRIT. If the woolding is already on the bowſprit, and it is in its place, the firſt operation is to rig the horſes, and then put on the gammoning;

ing: proceed to fix the firſt bobſtay-collar, the two ſhroud-collars, the middle bobſtay-collar, and the fore-preventer-ſtay collar; laſh the blocks for the fore-bowlines; fix the laſt bobſtay-collar; laſh the blocks for the fore-topſail bowlines; hitch in their places the ſpans for the ſpritſail-lifts, the ſtrap for the ſtanding-lifts, and the ſpan for the fore-preventer braces; then ſet up the bobſtays and the ſhrouds.

SPRITSAIL-YARD. Heave it on board: then get over the yard-arms the horſes and the brace-pendents; reeve the braces; get over the lift-blocks, and reeve the lifts; laſh the ſtanding-lifts and clue-line blocks round the yard, and the bunt-line blocks round the bowſprit; ſeiſe on the ſlings and ſtrap; reeve the haliards; and bowſe the yard into its place. When the yard is in its place, take in the haliards, and hook on the preventer-ſlings.

After the bowſprit and ſpritſail-yard are thus far completed, the next in order is the

FORE-MAST. The woolding being on, the maſt muſt be gotten in its place, by means of the ſheers*, with its girt-lines; and therefore laſh the girt-line blocks and reeve the girt-lines. When the maſt is in its place, clothe the bolſters on the treſtle-trees; get over the maſt-head the fore-tackle pendents, the ſhrouds, ſwifters, the fore-ſtay, and fore-preventer ſtay; get up the croſs-trees and the fore-top; turn in the dead-eyes, and reeve the laniards; ſeiſe the futtock-ſtaves to the ſhrouds; ſet up the ſhrouds; faſten the ratlings; and ſway the cap up into the top.

MAIN AND MIZEN MASTS. Proceed in the ſame manner with theſe maſts as with the FORE-MAST.

THE JIB-BOOM. The jib-boom, being in the nature of a top-maſt to the bowſprit, is next in order; therefore, put on the traveller; rig the horſes; put on the guy-pendents, and the ſtrap for the fore-topgallant ſtay and fore-topgallant bowlines; then ſet up the martingal-ſtay.

SPRITSAIL-TOPSAIL YARD. Firſt, heave it on board; get over the yard-arm the horſes, braces, and lifts; laſh the clue-line blocks; laſh the haliard-block between the cleats of the yard, and the other to the outer end of the jib-boom; reeve the haliards; get the yard out, and fix the parral.

FORE-TOPMAST. Heave up the topmaſt, and fix the cap on the lower-maſt head; then get the girt-lines to the topmaſt-head, and get the croſs-trees up into the top; take away the girt-lines, and get the topmaſt croſs-trees over the topmaſt-head; fix the cheek-blocks; laſh the girt-line blocks again to the topmaſt-head, and reeve the girt-lines: clothe the bolſters; get over the maſt-head the burton-pendents, ſhrouds, breaſt-backſtay, after-backſtay, and ſhifting-backſtay, the topmaſt-ſtay, and preventer-ſtay: ſway up the topmaſt-cap and fix it: then take down the girt-lines; heave up the topmaſt, and fid it: put the futtock-plates through the ſides of the top, hook on the futtock-ſhrouds, and ſeiſe the lower ends; turn the dead-eyes into the lower ends of the topmaſt-ſhrouds; reeve the lapiards; ſet up the ſhrouds; rattle them down; then ſet up the backſtays.

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* That the Reader may form an idea of ſheers ſufficient to hoiſt a maſt in or out of a ſhip, we ſubjoin, to the end of this part of our work, the method of taking a firſt-rate's mainmaſt out by means of her two topmaſts.

Proceed with the MAIN and MIZEN TOPMASTS as far and in the ſame manner as with the FORE-TOPMAST.

Then caſt off the ſhrouds and backſtays, in order to ſet up all the lower-ſtays; and after them the topmaſt-ſtays. When that is done, ſet up the ſhrouds and backſtays again.

FORE-YARD. The maſts are now ready to receive the lower and topſail yards; therefore heave on board, and place, before its maſt, the fore-yard. Before it is hoiſted in its place, get over the yard-arms the horſes and yard-tackle pendents: then ſeiſe on the tricing-blocks: get the brace-pendents over the yard-arms, and reeve the braces: put over the yard-arms the topſail-ſheet blocks: the lift-blocks are next ſpliced in the ſtrap of the topſail-ſheet blocks, and the lifts rove. The jear-blocks are now hove to the maſt-head and laſhed; the other blocks of the jears are laſhed to the ſlings of the yards; and the falls then reeved: laſh on the yard the quarter-blocks, clue-garnet blocks, leech-line blocks, and bunt-line blocks; ſeiſe the ſlab-line blocks to the ſpan of the quarter-blocks; ſeiſe the truſs-pendents to the yard; and then put on the puddening. Reeve the nave-line: put on the ſlings and ſtraps; and then hoiſt the yard to the maſt-head.

Proceed in the ſame manner with the MAIN and CROSS-JACK YARDS.

FORE TOPSAIL-YARD. Heave it on board, and place it for rigging. Get over the yard the horſes, Flemiſh horſes, and brace-pendents; reeve the braces; get over the yard-arms the lift-blocks, and reeve the lifts. Reeve the reef-tackle pendents; then laſh one tie-block to the topmaſt-head and the other tie-block to the ſlings of the yard. Laſh on the yard the clue-line blocks and the topgallant-ſheet blocks; ſplice the bunt-line blocks round the ſtrap of the topſail-tie block on the yard; then heave up the yard, and paſs the parral round the yard and maſt.

Proceed in the ſame way with the MAIN and MIZEN TOPSAIL YARDS.

FORE TOPGALLANT-MAST. The fore topgallant-maſt is then hove up to its place. Put the grommet over the maſt-head, then the ſhrouds, then the backſtay and ſhifting-backſtay, topgallant-ſtay and flagſtaff ſtay. Then ſway up the topgallant-maſt, and fid it. Set up the ſhrouds and ſtays.

Proceed in the ſame manner with the MAIN and MIZEN TOPGALLANT MASTS, and ROYAL MASTS, when any.

FORE TOPGALLANT-YARD. Heave it on board. Get over the yard the horſes and brace-pendents, and reeve the braces; get over the yard-arms the lifts: reeve the tie through the hounds of the topgallant-maſt, and clinch it round the middle of the yard. Laſh on the yard the clue-line blocks; ſway up the yard, and fix the parral.

MAIN and MIZEN TOPGALLANT-YARDS are proceeded with in the ſame manner.

The ROYAL-YARDS, when there are royal-maſts, rig as topgallant-maſts. When no royal-maſts, they are ſet flying; in which caſe, the haliard is rove, and the yard is gotten up in its place.

The MIZEN-YARD, or GAFF, is then hove on board. Laſh one jear-block between the cleats, another at the mizen-maſt head, and reeve the falls. Laſh the derrick-blocks on the yard and mizen-cap, and reeve the derrick-fall. Seiſe on the brail-blocks; put the vangs over the peek-end; reeve the bowlines, and clinch the horſe for the ſheets; then hoiſt the yard, and paſs the ſlings.

In ſmaller ſhips a gaff is uſed inſtead of a mizen-yard: it has a throat-haliard inſtead of jears, and a ſpan inſtead of a derrick.

DRIVER, or SPANKER-BOOM. When hove on board, hitch the topping-lift over the end, and reeve the lifts. Splice the guy-pendents round the boom, and hook the tackle.

The SHROUDS are then ſet up with their proper laniards.

Thus far is the ſhip completed, without the ſails. The progreſſion of rigging them is as follow:

SAILS.

FORE-COURSE; Pl. 8, fig. 1. The rope-bands and points being put in on ſhore, lay the ſail athwart, ready for bending. Place the ſheet-block, tack and clue-garnet blocks, in the clues. Reeve the ſheets, lead the tacks; reeve the clue-garnets, the leech-lines, the bunt-lines, bowlines, and ſlab-lines. Then, by means of the yard-ropes, run the ſail up to the yard. Paſs the ear-rings and reef ear-rings; faſten the ſail to the yard by the ropebands; and faſten the gaſkets to the yard.

The MAIN-COURSE, Pl. 8, fig. 2, is the ſame as the FORE-COURSE.

MIZEN; Pl. 7, fig. 11. Reeve the ear-rings and paſs the lacings. Reeve the laniard for the tack, the ſheet, the brails, and fancy-line. Then ſet the mizen, to ſee that it is clearly bent.

JIB; Pl. 7, fig. 1. Reeve the ſtay at the maſt-head; put on the hanks; and clinch the ſtay to the traveller. Seiſe the head of the ſail to the hanks.

Reeve the downhauler, the haliards, the ſheets, the outhauler, and inhauler. Run the ſail up, to ſee that it is clear.

FORE-TOPMAST STAYSAIL; Pl. 7, fig. 2. Reeve the ſtay at the maſt-head; put on the hanks; and faſten the ſtay round the bowſprit. Seiſe the ſail to the hanks; reeve the downhauler and haliards; bend the ſheets, and reeve the outhauler. Run the ſail up, to ſee that it is clear.

FORE-STAYSAIL, Pl. 7, fig. 3, bends with hanks, downhauler, &c, as the fore-topmaſt ſtayſail to the fore-preventer ſtay.

FORE-TOPSAIL; Pl. 8, fig. 3. The rope-bands and points being in, ſway the ſail into the top, and lay it fair for bending. Paſs the ſheets and clue-lines; reeve the bunt-lines, bowlines, reef-tackle pendents, reef ear-rings, and ear-rings. Haul out the ſail; and, the yard being lowered, bend it to the yard by the rope-bands, and reeve the gaſkets. Let it fall, to ſee that it is fairly bent.

MAIN-TOPSAIL and MIZEN-TOPSAIL are the ſame as the FORE-TOPSAIL.

FORE TOPGALLANT-SAIL, Pl. 8, fig. 6, is either ſwayed up to the topmaſt croſs-trees, or bent to the yard below. If bent below, the yard and ſail are hoiſted up by the jack-block. Bend the ſheets and clue-lines; reeve the bunt-lines and bowlines. Paſs the ear-rings; haul the ſail out to the yard, and bend it to the yard by rope-bands or lacing.

MAIN and MIZEN TOPGALLANT-SAILS, Pl. 8, fig. 7, 8, are the ſame as the FORE TOPGALLANT-SAIL.

ROYALS, Pl. 8, fig. 9, 10, 11, are ſet as topgallant ſails, when there is a royal-maſt: if not, they are only ſet flying; in which caſe, laſh the clues, and reeve the haliards and braces.

MAIN-STAYSAIL; Pl. 7, fig. 4. Clinch one end of the ſtayſail-ſtay round the maſt-head; reeve the hanks, and ſet up the ſtay; ſeiſe the head of the ſail to the hanks; reeve the haliards and downhauler, laſh the tack, and reeve the ſheets. Run it up, to ſee that it is fair.

MIZEN-STAYSAIL; Pl. 7, fig. 8. Clinch the ſtayſail-ſtay round the maſt-head; reeve the hanks; and ſet up the ſtay. Seiſe the head of the ſail to the hanks; reeve the haliards, downhaulers, and brails. Laſh the tack, and bend the ſheets. Run it up, to ſee that it is fair.

MAIN-TOPMAST STAYSAIL; Pl. 7, fig. 5. Reeve the hanks on the topmaſt preventer-ſtay, and ſeiſe the ſail, in the foretop, to the hanks. Reeve the haliards, downhauler, brails, tacks, and ſheets; and then run it up.

MIDDLE-STAYSAIL; Pl. 7, fig. 6. Reeve the hanks on the middle-ſtayſail ſtay, and ſet it up; then ſeiſe the ſail, in the fore-top, to the hanks. Reeve the haliards, downhauler, tacks, ſheets, and tricing-line; and then run it up.

MAIN-TOPGALLANT STAYSAIL; Pl. 7, fig. 7. Reeve the hanks on the ſtay, and ſet it up. Seiſe the ſail, on the fore-topmaſt croſs-trees, to the hanks. Reeve the haliards, downhauler, tacks, and ſheets.

MIZEN-TOPMAST STAYSAIL; Pl. 7, fig. 9. Reeve the hanks on the mizen-topmaſt ſtay. Seiſe the head of the ſail, in the main-top, to the hanks. Reeve the haliard, downhauler, tacks, and ſheets.

MIZEN-TOPGALLANT STAYSAIL; Pl. 7, fig. 10. Reeve the hanks on the mizen-topgallant ſtay. Seiſe the head of the ſail, on the main-topmaſt croſs-trees, to the hanks. Reeve the haliard, downhauler, tacks, and ſheets.

SPRITSAIL-COURSE; Pl. 8, fig. 19. The rope-bands and points being in, while on the forecaſtle, place the ſheet-block and clue-line blocks in the clues. Reeve the clue-lines, bunt-lines, and ſheets. Then get it out on the bowſprit, and ſpread the head of the ſail to the yard by the ear-rings. Bend it to the yard by rope-bands. Let it fall, to ſee that it is fair.

SPRITSAIL-TOPSAIL; Pl. 8, fig. 20. While on the forecaſtle, place the ſheet-block and clue-line blocks in the clues. Reeve the clue-lines and ſheets. Get the ſail out to the yard, and ſpread the head by the ear-rings; bend it either by rope-bands or lacings.

DRIVER; Pl. 8, fig. 12. The ſail being laid ready for bending, bend the haliards to the head of the ſail; lace the peek of the ſail to the driver-yard, and make faſt to the yard the peek-haliard. Reeve the ſheet and downhauler. Hoiſt the ſail; make faſt the neck ear-ring; and ſet the tack.

LOWER FORE STUDDING-SAIL; Pl. 8, fig. 13. Bend the outer part of the head of the ſail to the ſtudding-ſail yard with rope-bands. Reeve the outer and inner haliards; bend and reeve the tacks; and lead the ſheets. If the fore ſtudding-ſail ſets flying, it has a yard on the foot.

LOWER MAIN STUDDING-SAIL, Pl. 8, fig. 14, is rigged in the ſame manner.

FORE-TOPMAST STUDDING-SAIL; Pl. 8, fig. 15. Bend the head of the ſail to the topmaſt ſtudding-ſail yard with rope-bands or lacing. Reeve the haliards and downhauler. Bend and reeve the tacks; bend and lead the ſheets. Spread the foot of the ſail on, and run out, the boom.

MAIN-TOPMAST STUDDING-SAIL, Pl. 8, fig. 16, is rigged ſimilarly.

FORE-TOPGALLANT STUDDING-SAIL; Pl. 8, fig. 17. Bend the head of the ſail to the topgallant ſtudding-ſail yard with lacing. Reeve the haliards and downhauler. Bend and reeve the tacks; then bend and lead the ſheets. Spread the foot of the ſail on, and run out, the boom.

MAIN-TOPGALLANT STUDDING-SAIL, Pl. 8, fig. 18, is rigged in the ſame way.

Having thus ſhewn, in a ſummary way, the progreſs of rigging a ſhip, we proceed to give particular directions for each operation in the ſame order.

THE RIGGING OF THE BOWSPRIT.

Woolding of the bowſprit is performed on ſhore, in the manner deſcribed under that word in the preceding part.

Horses. The outer ends are ſpliced round a thimble cloſed through an eye-bolt on each ſide of the upper part of the bowſprit-cap. The inner ends have a thimble ſeiſed in, that ſets up to the eye-bolt in the timber-head, on each ſide the ſtem, by a laniard, paſſed ſeveral times alternately through the thimble and eye-bolt, and ſet tight by hand: the turns are then frapped together, and the end hitched.

Gammoning. Nine or eleven turns of the rope are paſſed over the bowſprit and through a hole cut in the knee of the head alternately; but, where there is no knee, through a large triangular ring-bolt driven through the ſtem. The firſt end is whipt and paſſed through the hole, and over the bowſprit, with a round turn, then clinched round the bowſprit cloſe againſt the cleats; the other end paſſes through the fore part of the hole, taking care to croſs every turn, and keep each turn forward on the bowſprit and aft in the hole, and every turn is hove tight and nippered. In the navy, the bowſprit is firſt hove down by a chain-boat. A ſelvagee is faſtened round the bowſprit, next the ſaddle for the ſpritſail-ſlings, to which a block is hooked, and through it a pendent is reeved, having one end made faſt to an eye-bolt in one ſide of the boat, and a luff-tackle to the other end, whoſe fall is connected with the windlaſs, and heaved tight by handſpecs; the fall is then ſtopped with ſpunyarn, and taken off the windlaſs. Each turn of the gammoning-rope is then hove tight as above. A leading-block is laſhed through an eye-bolt, in the bow of the chain-boat, or round the davit, and a pendent reeved through, with an eye ſpliced in one end, through which a bight of the gammoning-rope is paſſed, and retained by means of a toggle. To the other end of the pendent is hooked a luff-tackle, whoſe fall is connected with the windlaſs, and hove tight as before. The luff-tackle is over-hauled by a ſmall jigger-tackle, made faſt to the davit head and ſtrap of the luff-tackle block. In merchant-ſhips, chain-boats are ſeldom uſed. Their own long-boats or caſks of water are hove up to the bowſprit-end, and every turn of the gammoning-rope is connected with the windlaſs or capſtan on board. A leading-block is made faſt through the holes, for the bobſtay, with tails, long enough for the pendent and tackle to lead ſtraight through the hawſe-holes to the windlaſs. The proceſs as before.

When all the turns are paſſed, and hove tight, they are frapped together in the middle, by as many croſs turns as are paſſed over the bowſprit, each turn hove tight: the end of the gammoning-rope is then whipt, and ſeiſed to one of the turns. The frapping increaſes the tenſion; and adds to the ſecurity acquired by the purchaſe.

MAIN PREVENTER-STAY COLLAR is laſhed under the bowſprit a little within the gammoning. This mode of ſetting up the main preventer-ſtay is not often practiſed; it being uſually ſet up to the lower part of the fore-maſt, as mentioned hereafter.

The firſt BOBSTAY-COLLAR is laſhed upon the upper ſide two-thirds out, or within the ſaddle for the ſpritſail-ſlings with eight or ten turns, each turn paſſing, alternately, through the eyes, and hove tight by a heaver.

The two SHROUD-COLLARS are laſhed upon each ſide the bowſprit as the bobſtay-collar; but the heart of each is to be kept on the oppoſite ſide.

FORE-STAY COLLAR ſtops againſt cleats, nailed to the bowſprit, to prevent its coming in, and is laſhed under the bowſprit. A ſtage is made for this purpoſe, of two long ſpars, or the topmaſt ſtudding-ſail booms, and a grating. One end of the ſpars reſts upon the gunwale, on each ſide the bowſprit, and the outer ends are laſhed to the bowſprit, and the grating is laid under the collars.

MIDDLE BOBSTAY-COLLAR is then laſhed on as the firſt bobſtay-collar.

FORE PREVENTER-STAY COLLAR is then laſhed on as the fore-ſtay collar.

BLOCKS for the fore-bowlines are laſhed one on each ſide of the fore-ſtay or fore preventer-ſtay collar.

LAST BOBSTAY-COLLAR is laſhed on as the other bobſtay-collars, provided three are uſed; but, if not, the middle bobſtay-collar is the laſt.

BLOCKS for the fore-topſail bowlines are laſhed, one on each ſide, to an eye-bolt in the bowſprit-cap.

SPANS for the ſpritſail-lifts are hitched round the bowſprit-cap under the jib-boom.

STRAP for the ſtanding-lifts has a thimble ſpliced in each end, and hitches round the bowſprit within the bees.

SPAN for the fore preventer-braces, in war, prepared on ſhore, is hitched round the bowſprit-cap.

When the rigging of the bowſprit is thus far completed, the bobſtays and ſhrouds are ſet up as follows:

BOBSTAYS. King's ſhips have two or three pair of bobſtays: merchant-ſhips, according to their ſize, one or two pair. They are fixed by paſſing one end through a hole bored in the knee of the head; (merchant-ſhips, that have no knee, have large triangular bolts driven through the ſtem, and clenched on a plate of iron inſide;) the ends are then ſpliced together, to make it two-fold, or like the link of a chain. A heart, or dead-eye, is ſeiſed in the bight, with a ſplice at the arſe of the heart, the ſame as the collar; a laniard then paſſes through, and connects with the heart, or dead-eye, in the collar under the bowſprit, and ſets up tight, with a luff-tackle upon luff, and leads in upon the forecaſtle. The uſe of the bobſtay is to draw down and keep ſteady the bowſprit, to counteract the force of the ſtays of the fore-maſt, which draw it upwards.

SHROUDS hook to an eye-bolt on each ſide of the bow; the foremoſt end has a heart, or dead-eye, ſeiſed in, that it may ſhift nearer in as the rope ſtretches; the ſhrouds are then ſet tight as the bobſtay. The ſhrouds are to fortify the bowſprit, as the fore-maſt and upper part of the main-maſt are ſtayed and ſupported by the bowſprit.

THE RIGGING OF THE SPRITSAIL-YARD.

HORSES. The eye in the outer end is put over the yard-arm on each ſide, and ſtops againſt the cleats; the other end has an eye ſpliced in and ſeiſed to the yard three feet beyond the ſlings. The horſes hang three feet below the yard. To keep horſes more parallel to the yard, they are ſuſpended at proper diſtances by ropes, called

STIRRUPS, two or three on each ſide the ſlings, having a thimble or eye ſpliced in their lower ends. They hang three feet below the yard, through which the horſe reeves. The upper ends are open and plaited, to lie flat to the yard: they have three turns round the yard, and are nailed. A Flemiſh horſe is uſed at each arm of the yard, having an eye ſpliced in each; one eye is put over the bolt in the yard-arm, the other ſeiſed within the cleats.

BRACES and PENDENTS. The eyes of the pendents are ſpliced in one end. They go over the yard-arm, and the brace reeves through the ſingle block ſpliced in the other end, connecting them with a double block, made faſt under the fore-top, and then leads through another, made faſt at the aft-part of the top, and down to the breaſt-work at the aft part of the forecaſtle, and the ſtanding-part is made faſt to the ſtay-collar.

LIFTS. The blocks are ſtrapped with an eye to the ſize of the yard-arm, and put neatly over the yard-arm: after which one end of the lifts reeve through the ſingle block in the ſpan at the cap, then through the lift-block on the yard-arm. The ſtanding-part is made faſt to an eye-bolt in the cap, and leads in upon the forecaſtle; they are uſed for the ſpritſail-topſail ſheets, and to keep the yard level, or to raiſe one yard-arm higher than the other, and ſupport the weight when a number of ſeamen are employed to furl or reef the ſail. When the lifts are not uſed as ſheets, they hook to a thimble in the becket, hitched round the bowſprit-cap.

The STANDING-LIFT has an eye ſpliced in one end, and laſhes to the yard one-fourth from the ſlings; the other end has a thimble ſpliced in, and is ſet up with a laniard to a thimble ſpliced in a ſtrap that goes round the bowſprit within the bees.

Clue-line Blocks are ſtrapped, with two eyes, and are laſhed through thoſe eyes, round the yard, three feet without the ſlings; the laſhing to be upon the yard.

Bunt-line Blocks laſh round the bowſprit, near the yard, juſt before the ſpritſail-ſlings. Small ſhips have a ſtrap and thimble.

Slings. One end has an eye, and goes round the yard cloſe within the cleats in the middle, and ſeiſes with a quarter-ſeiſing cloſe to the yard; the other end goes over the bowſprit before the ſaddle, and under the yard, then over the bowſprit again, and an eye is ſpliced in the end, that comes cloſe to the other eye, and laſhes.

Strap, with a thimble ſeiſed in its bight, is ſpliced or ſeiſed round the yard in the middle, between the cleats. The ſingle block of the haliards hooks in the thimble, and is mouſed with ſpunyarn round the hook, to prevent its ſlipping. The long-tackle block is hooked, and mouſed, to an eye-bolt in the after-part of the bottom of the cap, and the fall leads in upon the forecaſtle, and belays to the rack over the bowſprit. Alſo, on each outer-quarter of the yard is ſeiſed a ſtrap, with a thimble, through which are led the jib-guys.

Preventer-Slings are uſed when the haliards are taken in. The outer end has a hook and thimble ſpliced in and ſerved down, that hooks to the eye-bolt in the bottom of the cap. The inner end reeves through the thimble in the above ſtrap, and is hitched with two half-hitches, or ſpliced.

THE RIGGING OF THE FORE, MAIN, AND MIZEN, MASTS.

Woolding of the maſts is performed on ſhore, in the manner deſcribed under that word in the preceding part.

Girtline-Blocks are prepared on ſhore; and, before the maſt is gotten in its place, are laſhed, one round the maſt-head, above the ſtop of the cap, and one round the treſtle-trees, in the ſcore of the croſs-trees. This latter block is, when the maſt is ſtepped, ſhifted oppoſite the other. The girtlines that reeve through them lead down upon deck, for hoiſting the rigging, tops, and croſs-trees, and the perſons employed to place the rigging, over the maſt-head.

Bolsters, on the treſtle-trees, are clothed with old canvas, ſeveral times doubled, and tarred.

Pendents of Tackles are gotten over the maſt-head, and fixed, that the thimbles, to which is laſhed the block for the runner, may hang one on each ſide of the maſt; but burtons are uſed to the mizen-maſt, inſtead of pendents of tackles.

Shrouds are hoiſted over the maſt-head. The firſt pair leads down on the ſtarboard-ſide forward, the next pair forward on the larboard-ſide; then the ſecond pair on the ſtarboard, and the ſecond on the larboard, and ſo on till the whole are fixed. By this method, the yards are braced to a greater degree of obliquity when the ſails are cloſe-hauled, which could not be were the foremoſt ſhrouds laſt fitted on the maſt-head.

Swifters, prepared on ſhore, are ſwayed over the maſt-head, next above the ſhrouds; and are fixed on the ſtarboard and larboard ſides of the maſt. They are extended from the maſt-head to the ſtarboard and larboard ſides of the ſhip, to ſupport the maſts, and enable them to carry ſail, &c.

The Stay is hoiſted over the maſt-head, and ſupports the maſt on the fore-part, by extending from its upper end towards the fore-part of the ſhip; it is ſet up after the topmaſt is in its place.

The Preventer-Stay is next hoiſted over the maſt-head, the ſame as the former.

The Cross-Trees are then hoiſted into their places, and bolted on the treſtle-trees, which are fore-locked underneath.

The Top is next gotten over the maſt-head, by the girtlines. Four holes are bored through; one in the middle of the ſquare hole on each ſide, and two in the fore-part, four inches on each ſide the middle of the top, except the mizen-top, which is bored in the aft-part. The top is hoiſted on board by the girtlines, and placed up againſt the aft-ſide of the maſt, except the mizen, which is to be placed on the fore-ſide. The girtline is made faſt to the top, for hoiſting it over the maſt-head, as follow: Reeve one end of each girtline through the hole by the middle of the ſquare hole, and take a whole round turn round the ſides of the top; make it faſt to the ſtanding-part with two half-hitches, and ſtop it with ſpunyarn through the midſhip-holes in the fore-part, except the mizen-top, which is ſtopt at the aft-part. The girtline at the next maſt-head is made faſt to the aft-part of the main and fore-top and fore-part of the mizen-top. The top is then hoiſted by its girtlines over the maſt-head, and guyed clear of the treſtle-trees by the girtline from the next maſt-head. When it bears againſt the maſt-head, the ſtops are cut, and the top is ſwayed up till it goes over the maſt-head and falls to its place.

Tops have lately been made in two parts, by which they are much more eaſily hoiſted into their places than formerly.

Dead-Eyes are then turned into the lower end of the ſhrouds, left-handed, (being cable-laid rope,) with a throat-ſeiſing clapt on cloſe to the dead-eye, and above that a round-ſeiſing, croſſed, and the end of the ſhroud whipt with ſpunyarn, and capped with canvas well tarred.

Laniards are reeved through the dead-eyes: the end of the laniard is thruſt through the after-hole of the upper dead-eye, and ſtopt with a walnut-knot, to prevent its ſlipping; the other end is paſſed through the after-hole of the lower dead-eye, and, returning upwards, is conveyed through the middle-hole in the upper dead-eye, and next through the middle-hole in the lower dead-eye, and, finally, through the foremoſt-hole in both dead-eyes. The end of the laniard, being directed upwards from the lower dead-eye, is ſet up by the runner and tackle, which hooks in the runner-pendent: a luff-tackle is alſo hooked to a ſelvagee in the ſhroud, and the lower-part hooked to the laniard with a cat's paw, and bowſed tight: the fall is then made faſt to the hook of the runner with another cat's paw; the runner is ſwayed up very tight, and the laniards are then nipped together with a ſtrand or ropeyarn. To make the whole ſlide with eaſe through the holes in the dead-eyes, it is ſmeared with tallow, that all the turns may bear an equal proportion of the ſtrain. When the ſhrouds are ſet up for a full due, (which is when the maſt is ſtayed forward and the ſtays all ſet up,) the laniard is nipped, or ſtopt, as before-obſerved, and the end paſſed betwixt the throat-ſeiſing and the dead-eye with a hitch, then brought round all the parts, in turns, to expend the laniard, and the end is well ſtopt to the ſhroud with ſpunyarn. It is cuſtomary to ſet up the ſhrouds the firſt time with temporary laniards of worn rope and ſpunyarn-ſeiſings; and with the proper laniards and ſeiſings, when ſet up the laſt time for ſea.

Futtock-Staves are ſeiſed along the lower ſhrouds horizontally, as much below the upper-ſide of the treſtle-trees as the cap is above. The ſhrouds are then ſwiftered together, viz. a ſpar is laſhed to the outſide of the ſhrouds about ſix feet below the futtock-ſtave; a ſingle block is then laſhed round each ſhroud and ſpar, (except the fore and after ſhrouds,) ſo that all come in together: the ſwifting-line is then reeved through each block, from ſide to ſide, beginning in the middle, one end leading aft, the other forward; it then croſſes, and reeves through two leading-blocks, one on each ſide the deck, and is bowſed tight till the ſhrouds come into the length of the cat-harpin-legs, which are ſeiſed at each end, round the futtock-ſtave and ſhrouds.

Ratlings are faſtened horizontally to the ſhrouds, at regular diſtances, from the futtock-ſtaff downwards, and ſmall ſpars or boat-oars are ſeiſed to the ſhrouds, about five feet aſunder, for the men to ſtand upon. The firſt ratling to be thirteen inches below the futtock-ſtaff on the lower ſhrouds. The ratlings are faſtened round each ſhroud with a clove-hitch, except at the ends, which have an eye ſpliced in and ſeiſed round the ſhroud. Each ratling is placed thirteen inches aſunder. The fore and aftermoſt ſhrouds are left out for the firſt ſix ratlings down from the futtock-ſtaff; and likewiſe the ſix lower ratlings next the dead-eyes. The topmaſt-ſhrouds are rattled in the ſame manner; the firſt ratling thirteen inches below the futtock-ſtaff, and rattled throughout. The ſwifters on the lower ſhrouds are then removed lower down, half way between the dead-eyes, and bowſed tight, there to remain.

The Cap is next ſwayed up into the top by the girtlines,

THE RIGGING OF THE JIB-BOOM.

The TRAVELLER is firſt put over the outer end of the jib-boom; the hook is kept inwards, to hook the tack of the jib to.

HORSES. The bight is taken over the jib-boom with a jambing-knot, and reſts againſt a ſhoulder, made in the end of the jib-boom, to prevent its coming in. The inner ends are brought in, and made faſt with a round turn round the jib-boom, within the cap. The ends are ſtopt back with two or three ſeiſings of ſpunyarn, to prevent their being caſt off by miſtake.

GUY-PENDENTS are put over the jib-boom, the ſame as the horſes, and the inner ends reeve through a thimble, on the quarters of the ſpritſail-yard, and turn into the ſtrap of a double block, with a throat and round ſeiſing, which is connected, by its fall, to a ſingle block, that hooks to an eye-bolt, near the cat-head, and leads in upon the forecaſtle.

A STRAP is put over the end of the jib-boom, with three thimbles ſeiſed in it; the middle thimble is the largeſt, which the fore-topgallant ſtay reeves through, and the ſmaller thimble on each ſide has the fore-topgallant bowlines reeved through.

The MARTINGAL-STAY is then ſet up, in the manner directed in the preceding part under that word.

THE RIGGING OF THE SPRITSAIL-TOPSAIL YARD.

HORSES. The eye in the outer ends is put over the yard-arm on each ſide, and ſtops againſt the cleats; the other end has an eye ſpliced in it, and is ſeiſed to the yard, three feet without the ſlings.

BRACES have an eye ſpliced in one end, that goes over the yard-arm on each ſide; the other end leads through a block made faſt to the under-ſide of the fore-top, from that through another block, made faſt under the aft-ſide of the top, and down to the aft-part of the forecaſtle, and is there belayed.

LIFTS have an eye ſpliced in one end, that goes next over the yard-arm; the other end leads through a thimble, ſeiſed on each ſide a ſtrap that goes over the jib-boom end, and leads in upon the forecaſtle, through a ſaddle on the bowſprit for leading in the running-ropes, and belays to the rack over the bowſprit.

CLUE-LINE BLOCKS are ſtrapped with two eyes, and are laſhed through thoſe eyes round the yard, about two feet without the ſlings.

HALIARD. One end reeves through a block, laſhed under the outer-part of the jib-boom; then through a ſingle block, laſhed round the middle of the yard between the cleats; then forward; and is made faſt with a bend, through the becket of the block, at the jib-boom ends. The leading-part leads in upon the forecaſtle, and belays to the rack over the bowſprit.

Parral. Both ends of the parral-rope paſs under the yard, and over the jib-boom, contrary-wiſe; they are then ſeiſed through the eyes, cloſe in the cavity on the back of the ribs.

THE RIGGING OF THE TOPMASTS.

The **Girtlines** are now taken down from the maſt-head, and one of the top-blocks is ſecurely laſhed round the maſt-head below the cap. The end of a hawſer then leads up from aft outſide the treſtle-trees, and reeves through the top-block at the maſt-head, then leads down inſide the fore-part of the treſtle-trees, and reeves through the ſheave-hole in the heel of the topmaſt, and is racked to the topmaſt in two or three places between the heel and the hounds. It is there well ſtopt with laſhing, of three-quarters of an inch, and enough of the end left to make faſt round the maſt-head. The other end of the hawſer is conveyed to the capſtan through a ſnatch-block that is laſhed faſt to the bitts at the aft-part of the maſt. When the topmaſt is hove high enough to enter the treſtle-trees, the end of the hawſer is made faſt round the maſt-head. The men in the top ſtand ready to place the cap over the head of the topmaſt, and ſtop it with laſhing, a little below the hounds, in a ſecure manner. The topmaſt is then hove high enough for the cap to enter over the lower maſt-head, and then lowered a little, and the cap beat down firmly on the maſt-head with malls, when the laſhing is taken off. This can now be done much better in the maſt-houſe, as the tops are made in two. The method here deſcribed is uſed in ſhips wherein the cap is too heavy to be gotten over the maſt-head by the hands in the top. As the topmaſt is elevated the rackings are cut.

The cap being firmly fixed on the lower maſt-head, the top-rope pendent is reeved through an iron-bound block, hooked through an eye-bolt on one ſide of the cap, then downwards, and reeved through a hole with a ſheave in the heel of the topmaſt, and brought upwards on the other ſide of the maſt, and made faſt to an eye-bolt in the cap on the oppoſite ſide of the top-block. To the lower end of the top-rope pendent is hooked, through the thimble, the block of the top-tackle, connected, by its fall, to a block hooked to an eye-bolt in the deck, and brought to the capſtan. The topmaſt croſs-trees are ſwayed up into the top with the girtline, and gotten over the topmaſt-head by the men in the top; and the cheek-blocks bolted to the topmaſt-head. The girtline-blocks are again laſhed to the topmaſt-head, as they were to the lower maſt-head, and the girtline reeved through, that one part may lead down by the ſide of the maſt, and the other part abaft the top.

Bolsters are clothed as the lower ones.

Burton-Pendents are hoiſted by the girtlines, and placed over the topmaſt-head, that the thimbles may hang on each ſide, to hook the burton-tackles in.

SHROUDS are ſwayed and placed over the topmaſt-head; the firſt pair to lead down on the ſtarboard-ſide forward; the next pair on the larboard-ſide forward; and ſo with the other two pair.

BACK-STAYS are hoiſted and placed over the topmaſt-head; the breaſt back-ſtay firſt, and the ſtanding back-ſtays next.

STAYS are ſwayed and placed over the topmaſt-head; the ſtay firſt, and the preventer-ſtay next.

TOPMAST-CAP is next ſwayed up by the girtlines into the top, and gotten upon the topmaſt-head by the men in the top, and beaten down firmly. The girtlines are unlaſhed and taken down, and the topmaſt hove up and fidded.

FUTTOCK-PLATES are put through the holes in the edge of the top.

FUTTOCK-SHROUDS are furniſhed with iron hooks, in the upper ends, that hook to a hole in the lower ends of the futtock-plates; and the lower ends of the futtock-ſhrouds are attached to the lower ſhrouds, with a round turn round the futtock-ſtaff and ſhroud, and ſeiſed upon the ſtanding-part of the ſhroud with two ſeiſings croſſed.

When the rigging is thus far completed, it is ſet up, &c. as follows:

DEAD-EYES are turned into the lower ends of the topmaſt-ſhrouds, as the lower ones are in the lower ſhrouds.

LANIARDS are reeved through the dead-eye in the ſhrouds and the dead-eye in the futtock-plate, as the lower ones, and ſet up with the top burton-tackles. The topmaſt-ſhrouds are to ſecure the topmaſt, and the futtock-ſhrouds receive equal tenſion, by means of the futtock-plates paſſing through the top, and connecting with the futtock-ſhrouds below.

RATLINGS as the lower-ſhrouds.

The BREAST-BACKSTAY has a ſingle block turned into the lower end, with a throat and round ſeiſing, through which the runner is reeved.

One end is made faſt to the chain-plates, abreaſt the maſt, with a half-hitch, and the end ſeiſed down. In the other end is ſpliced a double block, connected by its fall to a double block that is ſtrapped with an eye, through which a ſpan is reeved, that has an eye ſpliced in each end, by which it is laſhed to the chain-plates.

AFTER-BACKSTAYS are ſet up the ſame as a ſhroud, to a ſmall dead-eye in the after-end of the channel.

SHIFTING-BACKSTAYS are clenched round the topmaſt-head, and a thimble ſpliced in the lower end, to which is hooked a tackle, the lower block of which is hooked to an eye-bolt without-board, and frequently ſhifted from place to place.

BACK-STAYS are extended to the channels on each ſide, and are to ſupport the topmaſts, and aſſiſt the ſhrouds, when the maſt is ſtrained by a preſs of ſail.

Lower-Stays are thus ſet up: The ſhrouds and back-ſtays are firſt caſt off, and the maſt-head gotten as far forward as nearly to touch the fore-part of the partners, by the runners and tackles, or burtons, of the mizen-maſt. The fore-pendents are frapped together abaft the fore-maſt; the runners are paſſed round the bowſprit with a round turn, and hitched with the bight ſeiſed. The falls of the runner-tackles then lead in upon deck through a block laſhed round each knight-head, and ſwayed upon by the people on deck.

Main-Pendents are frapped together abaft the main-maſt, and the runners made faſt round the cable-bitts, ſimilar to the fore-maſt.

The tackles hook to eye-bolts in the deck, and the falls lead aft.

Mizen-Burtons are brought to the fore-brace bitts, as the runners are to the cable-bitts.

The Fore-Stay has a heart turned in the lower end with a throat-ſeiſing, and two round-ſeiſings above, and the end of the ſtay capped with canvas, whipped and tarred, then ſet up with a laniard, that reeves alternately through the heart in the ſtay and the heart in the fore-ſtay collar on the bowſprit. The firſt four turns lie in ſcores cut in the hearts, and are tallowed, that the ſtrain may be immediately given to all the turns at once. The laniard is then ſtrained tight by tackles, thus: The upper block of a luff-tackle is hooked to a ſelvagee faſtened round the ſtay, and the lower block is hooked with a cat's paw to the laniard: then the outer block of another luff-tackle is hooked with a cat's paw to the fall of the other tackle, and the inner block hooked where moſt convenient. The fall leads in upon deck, and is ſwayed by all hands. Then two of the turns are ſtopt together with a ropeyarn to prevent their coming up, and more turns taken, and hove on, as before, till the laniard is expended: the end is then well ſtopped.

The Preventer-Stay is ſet up the ſame as the fore-ſtay.

The Main-Stay ſets up as the fore-ſtay, to a heart ſeiſed in the bight of the main-ſtay collar above the bowſprit-chock.

The Collar reeves from the ſtarboard-ſide through a large hole in the ſtandard in the head, (or a large triangular eye-bolt is driven through the ſtem in ſome merchant-ſhips,) then reeves through the eye in the other end, and is brought down to its ſtanding-part, and ſecurely ſeiſed and croſſed in two or three places, and the end capped; the heart is then ſeiſed in the bight.

The Main-Preventer Stay ſets up as the fore-ſtay, to a heart ſeiſed in the bight of the main-preventer ſtay-collar, which laſhes round the fore-maſt, on the fore-ſide, through two eyes, or through a large eye-bolt in the head, the ſame as the main-ſtay collar.

The Mizen-Stay leads down from the maſt-head through a thimble, ſeiſed in the collar, laſhed round the main-maſt twelve feet up from the deck. It has an eye ſpliced in each end, and laſhes in the fore-ſide of the maſt. A thimble is turned in the end of the ſtay, after it is reeved through the collar, and ſet up with a laniard, reeved four or more turns, alternately, through the thimble in the ſtay, and an eye-bolt in the deck, that is parcelled and ſerved. The laniard is ſet tight by the main-runners, and cat's-pawed, as much as is required to ſtay the maſt; two of the turns are then ſtopt together with a ropeyarn, the length of the laniard expended, and the end made faſt with a hitch, and ſeiſed.

The Fore-Top and Fore-Top-Preventer Stays ſet up through the bees of the bowſprit, thus: A block with a ſheave in it is fixed under the holes in the bees, on each ſide, through which the ſtay paſſes; then a long tackle-block is turned into the ends, which is connected by its fall to a ſingle block hooked to an eye-bolt in the bow, on each ſide, and is ſet up with a luff-tackle, cat's pawed to its fall. The luff-tackle fall leads in upon the forecaſtle, and is ſwayed upon by the men. When the ſtay is ſet up, the parts of the tackle are ſtopt together with a ropeyarn, and the fall of the long-tackle is paſſed through the eye-bolt and arſe of the block, alternately, till it is expended. The end is then made faſt, round all the parts, with two half-hitches.

The Main-Topmast Stay reeves through a ſingle block, ſtrapped with a long and ſhort leg; the ſhort leg has an eye ſpliced in it, and faſtened round the foremaſt-head above the rigging; the long leg goes round the maſt, and through the eye of the ſhort leg, and is turned back and ſeiſed. The ſtay, having a thimble turned in the lower end, leads down between the catharpins and the maſt. It ſets up with a laniard to an eye-bolt in the deck, cloſe abaft the maſt, with a luff-tackle hooked to a ſelvagee, faſtened to the ſtay.

The Preventer-Stay reeves through a thimble, ſeiſed in the bight of the collar, that laſhes at the fore-part of the fore-maſt, cloſe up to the bibs, through the eyes, ſpliced in the ends of the collar, and then ſets up to an eye-bolt, as the topmaſt-ſtay.

The Mizen-Topmast Stay reeves through a thimble, ſeiſed in the bight of the collar, that laſhes at the fore-part of the main-maſt, cloſe up to the bibs; a thimble is then ſpliced in the ends of the ſtay, which ſets up through another thimble (with a laniard) that is ſpliced in another collar, laſhed round the maſt as the former, juſt below the catharpins, with the top-burton tackle cat's-pawed to the laniard. If with a long pole-head, the ſame as a topgallant-maſt.

The Shrouds are again ſet up.

THE RIGGING OF THE LOWER-YARDS.

Lower-Yards are rigged as follow: One end of the hawſer that hove up the topmaſt is made faſt round the yard with a round turn and two half-hitches, ſecurely ſtopt with ſpunyarn along the yard, in ſeveral places, and well ſtopt at the upper yard-arm. As it is hove on board, the ſtops are cut, and the runner-tackle of the oppoſite ſide is brought on to the quarter of the yard, to lower it eaſily, as the yard advances aboard beyond the middle or ſlings. The yards are placed ſquare athwartſhips before their reſpective maſts. The fore-yard muſt be kept above the main-ſtay by the runners, which are made faſt round each outer quarter of the yard.

HORSES go over the yard-arms with an eye in their outer ends, and ſtop againſt the cleats, and hang about three feet below the yard. To keep the horſe more parallel to the yard, it is ſuſpended, at proper diſtances, by ropes, called ſtirrups that have thimbles or eyes ſpliced in their lower ends, through which the horſes paſs; they are four on each ſide, and hang three feet below the yard, and the upper ends are opened, plaited, and faſtened to the yard with three round turns and nails. The inner ends of the horſes have a thimble turned in, with a throat and round ſeiſing; they laſh to the yard, on the oppoſite ſide of the cleats, with a laniard that paſſes round the yard and through the thimble.

YARD-TACKLE PENDENTS are next put over the yard-arm, with an eye, as the former. In the lower end is ſpliced a double block, connected by its fall to a ſingle one, ſtrapped with a hook and thimble.

TRICING-BLOCKS, for the yard-tackles, are ſtrapped with a ſhort laſhing-eye, that ſeiſes round the yard about one-third the length within the arm-cleats. The blocks to hang under the yard.

The INNER TRICING-LINE reeves through a block laſhed to the futtock-ſtaff; has a long eye ſpliced in the outer end, that reeves through the hook of the ſingle block of the yard-tackle; the bight is put over the hook with a couple of turns, and the leading-part belays to the ſhrouds. At ſea, the hook is hooked to a becket, or ſtrap, round the futtock-ſtaff.

The OUTER TRICING-LINE is ſpliced round the ſtrap of the yard-tackle block, and reeved through a block on the yard; Pl. 2, fig. 20; then leads into the ſhrouds, and reeves through a block laſhed to the ſhrouds, near the futtock-ſtaff, and down upon deck.

BRACE-PENDENTS are next put over the yard-arms with an eye, as above; in the lower end is a ſingle block, through which the brace reeves. Sometimes, in the navy, and oftener in the merchant-ſervice, the block is laſhed to the yard-arm without a pendent. Pl. 2, fig. 20.

FORE-BRACES reeve through the pendent-block; the ſtanding-parts make faſt round the collar of the main-ſtay, on each ſide, with a hitch, and the end ſeiſed. The leading-part reeves through a ſingle block, laſhed on each ſide the main-ſtay collar, cloſe up to the rigging, then leads down, and paſſes through a ſheave in the bitts, at the fore-part of the quarter-deck, and there belays. — Brigs lead the ſame.

Main-Braces reeve through a ſingle block in the pendent; the ſtanding-part makes faſt with a clinch round an eye-bolt in the upper part of the quarter-piece; the leading-part reeves through a ſnatch-block cloſe aft upon the gunwale, and belays round a cleat on the inſide.

Span for Main-Braces has two legs, with a thimble ſpliced in the end of each leg, which reeves the ſtanding and leading part of the brace, and the ſpan makes faſt with a half-hitch, and the end ſeiſed up round the mizen-ſhrouds.

Preventer-Braces, in war, are reeved through a block laſhed round the yard-arm, and through a block in a ſpan, round the bowſprit-cap; they then lead in upon the forecaſtle, and the ſtanding-parts make faſt round the cap. The main-brace reeves through the block on the yard-arm, then through a block laſhed to the fore-ſhrouds, cloſe below the catharpins; they then lead down upon the forecaſtle, and the ſtanding-part makes faſt to the ſhrouds above the block with a hitch, and the end ſeiſed. — Brigs reeve the ſame.

Topsail-Sheet Blocks are next put over the yard-arms, ſtrapt with an eye the ſize of the yard-arm. Pl. 2, fig. 20, and Pl. 3, fig. 17.

Lift-blocks are next ſpliced into the ſtrap of the topſail-ſheet blocks: the lifts reeve through the block in the ſpan hitched round the cap between the maſt-head and the topmaſt, then lead down abreaſt the ſhrouds, and reeve through a block faſtened to the ſide, and are there belayed. Pl. 2, fig. 20, and Pl. 3, fig. 17.

Jears, in large ſhips, are two large tackles; Pl. 2, fig. 20. The hanging-blocks at the maſt-head are hove up cloſe on each ſide by the top-burton tackles, and laſhed. A broad elm cleat is nailed on each ſide the maſt-head, above the blocks, as a ſtop for the laſhing. Every turn of laſhing is alternately paſſed through the ſtrap of the block, and over the cleat on the oppoſite ſide, and the ends of the laſhing are well ſtopt. The other two blocks are ſtrapt with a double ſtrap to the ſize of the yard, with a long and ſhort leg. They laſh on each ſide of the middle, or ſlings, within the cleats. The long leg of the ſtrap goes down the aft-ſide of the yard, and meets the bight of the ſhort leg on the fore-ſide, and laſhes, every turn paſſing alternately through each bight, roſe-faſhion. Pl. 3, fig. 30. The blocks, at the maſt-head and on the yard, are connected by their falls, which lead upon deck.

Jears, in merchant-ſhips, and ſmall ſhips of the navy, have two ſingle blocks laſhed on each ſide the maſt-head, as above, and another, the ſame ſize, in the middle of the yard. The tie, which connects with theſe blocks, reeves through one of the blocks at the maſt-head, then through the block on the yard, and afterwards through the block on the other ſide the maſt-head. In the lower ends of the tie is ſpliced a double block, which is connected by its fall to a treble block, that hooks to an eye-bolt in the deck, cloſe to the maſt, on each ſide. By this the power of the tackles below is communicated to the tie, which, connecting with the block upon the yard, eaſily ſways it up or lowers it.

QUARTER-BLOCKS are ſtrapt with a long and ſhort leg, with a laſhing-eye ſpliced in the ends, and laſh to the yard within the cleats, in the middle of the yard, the block hanging downwards. The long leg comes up the aft-ſide, and meets the ſhort leg on the fore-ſide, and there laſhes through the eyes. Through theſe blocks reeve the topſail-ſheets and clue-lines. Pl. 2, fig. 20.

A quarter-block is a double-block, with a thick and thin ſheave running on the ſame pin; and, though uſed for the topſail-ſheets, and intended for the clue-lines, a ſingle block would be cheaper and better, as the thin ſheave is ſeldom uſed for the clue-line, it being found to impede rather than facilitate. Small ſhips, in the merchant-ſervice, have a double block, laſhed in the middle of the yard, as the quarter-block, through which the ſheets reeve, and lead down on oppoſite ſides. Large ſhips, in the merchant-ſervice, have a ſingle block laſhed on each ſide the middle of the yard, and the ſheets reeve on their reſpective ſides, and lead down by the maſt.

CLUE-GARNET BLOCKS laſh through the eyes upon the yard, the blocks hanging underneath, four feet without the middle-cleats on each ſide. Pl. 2, fig. 20.

LEECH-LINE BLOCKS are laſhed round the yard and through the eye of the ſtrap, ten feet within the cleats on each yard-arm. The blocks to hang on the fore-part of the yard. Pl. 2, fig. 20.

BUNT-LINE BLOCKS are laſhed as the former in the middle, between them and the ſlings of the yard. Pl. 2, fig. 20.

SLAB-LINE BLOCKS are ſtrapt with a ſhort laſhing-eye, that ſeiſes to the ſpan of the quarter-blocks underneath the yard.

TRUSS-PENDENTS; the ends that have the thimbles in are paſſed round the yard within the cleats on each ſide the middle, or ſlings, and are well ſeiſed. One end paſſes over the yard, the other under, and both ends round the maſt. The ſtarboard end reeves through the larboard thimble, and the larboard end through the ſtarboard thimble. In the lower end is a double-block turned in, with a throat and round ſeiſing, connected by its fall to a double block, that hooks to an eye-bolt in the deck, on each ſide the maſt, by which the truſs-pendent is ſlackened or ſtraightened, to let the yard move from, or confine it ſtrictly to, the maſt. See Pl. 9.

TRUSS-PARRALS. With truſs-parrels leading acroſs (as in fig. 4, Pl. 9), in firſt or ſecond rates, in hard gales of wind, when the lower yards are ſquare, will require only two men to haul them taught, and will prevent the yards from moving in the leaſt. The parrals ſhould be ſeiſed round the yard, outſide the jear-blocks, near the outer end of the cleats. The weather-truſs muſt be always let go when the yard is bracing up.

PUDDENING is put on. This is deſcribed in the preceding part under the word *Puddening*.

NAVE-LINE reeves through a ſingle-block, laſhed under the aft-ſide of the top, and through a block or thimble ſeiſed to the truſs-pendents, up again, and makes faſt round the treſtle-trees. The leading part goes down upon deck.

SLINGS and STRAPS, prepared on ſhore. The long leg of the ſtrap paſſes down the aft-ſide of the yard, comes up the fore-ſide, meets the ſhort leg, and laſhes through the eyes; the ſtrap being placed exactly in the middle of the yard, and the thimble upwards.

SLINGS have a long and ſhort leg, and a large thimble ſeiſed in the bight. The long leg paſſes round the after-part of the maſt, and reeves through the eye in the ſhort leg; it is then brought back, and ſecurely ſeiſed to its own part in ſeveral places. The yard is then hoiſted, and retained at the maſt-head with a laniard, that ſplices in the thimbles in the ſlings, at the fore-part of the maſt, and then reeves through the thimble in the ſtrap upon the yard, and ſo alternately till the laniard is expended. The end then fraps round the turns, and makes faſt with two half-hitches. In time of action, the yards are ſlung with CHAINS.

THE RIGGING OF THE CROSS-JACK YARD

Is hove on board the ſame as the other yard, and rigged as follow:

The HORSES, BRACES, LIFTS, and TOPSAIL-SHEET BLOCKS, go over the yard-arm the ſame as on the other lower yards.

A QUARTER-BLOCK is ſtrapt with a double ſtrap, with an eye in each of the four ends, and is laſhed upon the yard in the middle-ſide between the cleats.

BRACE-PENDENTS, are ſtopt to the yard about four feet within the cleats at the yard-arm; the brace then reeves through the block in the pendent. The ſtanding-part of the ſtarboard-brace makes faſt to one of the middle ſhrouds on the larboard-ſide with a hitch, and the end ſtopt; and the leading part reeves down through a ſingle block laſhed to the ſame ſhroud a little below the catharpins; it then leads through a truck or double block ſeiſed to the middle ſhroud, and belays round a pin in the fife-rail, and the larboard braces the contrary.

LIFTS, running. Running-lifts reeve through a block in a ſpan hitched round the mizen-cap, and through the block upon the yard. The ſtanding part is carried up, and makes faſt round the cap, and the leading part leads upon deck.

Lifts, ſingle, are ſpliced through the ſtrap of the topſail-ſheet block, and the other end is carried up, then hitched and ſeiſed to an eye-bolt on each ſide the mizen-cap.

Truss-Pendents, the ſame as thoſe for the main and fore yards.

The **Yard** is hoiſted into its place by luff-tackles, hooked to the ſtrap, and the

Slings and **Straps**, as the lower yards of the fore and main maſts.

THE RIGGING OF THE TOPSAIL-YARDS.

The **Top-Rope** is faſtened to the ſlings of the yard, and ſtopt thence to the yard-arm, by which it is hove on board, and placed for rigging, as follow:

Firſt, The **Horses** are the ſame as the lower-yards, the addition of Flemiſh horſes excepted, (the lower-yards having none). They have an eye ſpliced in each end; one eye is put over the eye-bolt in the yard-arm, and the other eye is ſeiſed round the yard within the arm-cleats.

Brace-Pendents, are next put over the yard, as on the lower ones. Pl. 2, fig. 21. The fore-topſail braces reeve through the block in the pendent, and then through a block laſhed on each ſide the collar on the main-ſtay, a little below the fore-braces; the ſtanding-part makes faſt to the ſtay below the block with a hitch, and ſeiſed. The leading-part leads from the block upon the collar of the ſtay through a block laſhed on the ſtay, a-breaſt the fore-hatchway, and through a block ſtrapt with a thimble into an eye-bolt in the aft-part of the forecaſtle, and belays round an iron pin in the boat-ſkid.

Main-Topsail Braces reeve through the block in the pendent, and the ſtanding part makes faſt to the collar of the mizen-ſtay. The leading part reeves through a block in the ſpan round the mizen-maſt head below the hounds, and leads down through a ſheave-hole in the mizen-topſail ſheet-bitts, abaft the mizen-maſt, and belays there.

Mizen-Topsail Braces reeve through the block in the pendent. The ſtanding part makes faſt round the peek-end, and the leading part reeves through ſingle-blocks at the peek, and comes down to the fore-ſide of the taffarel.

Lift-Blocks are ſtrapt with an eye to the ſize of the yard-arm; Pl. 2, fig. 21. The lift reeves through the lower-ſheave in the ſiſter-block in the topmaſt-ſhrouds, and through the block on the yard-arm. The ſtanding part hooks to a becket round the topmaſt-cap, and the leading part leads down the ſide of the maſt, and belays to the dead-eyes in the lower-ſhrouds.

Reef-Tackle Pendents reeve through the upper-ſheave in the ſiſter-block in the topmaſt-ſhrouds, thence through the ſheave-hole in the yard-arm, and are ſtopt with an overhand-knot, till the ſail is bent. In the lower ends of the pendents a double block is turned in, connected by its fall to another double block, that is ſeiſed to the after-part of the lower treſtle-trees, and the ends of the falls lead down upon deck.

Tie-Blocks laſh at the topmaſt-head-cloſe up to the rigging, under the collar of the ſtay, as the lower ones; and the blocks on the yards laſh under the fore-part of the yard, as the lower ones, and reeve with a double tie in large ſhips, and a ſingle tie, like the lower, in ſmall ones. The ſtanding parts of the double ties clinch round the maſt-head, then reeve through the double block, upon the yard, and up again, and reeve through the block on each ſide the maſt-head. The fly-blocks are then ſpliced in their lower ends, and connected by their haliards to a ſingle block, that is ſtrapt with a long ſtrap, Pl. 3, fig. 49, with a hook and thimble, that hooks to a ſwivel eye-bolt in the channel on each ſide: the leading part comes in through a block laſhed on each ſide; the foremoſt ones abaft the forecaſtle, and the after ones on the quarter-deck.

Clue-Line Blocks are ſtrapped with two laſhing-eyes, and laſh upon the yards three feet without the ſlings; the blocks hanging underneath the yard, through which the clue-line reeves, and is ſtrapt with a knot, and leads down upon the deck. Pl. 2, fig. 21.

Topgallant-Sheet Blocks are ſtrapt with two laſhing-eyes, and laſh upon the yard, cloſe within the clue-line blocks on each ſide.

Bunt-Line Blocks are ſpliced round the ſtrap of the topſail tie-block upon the yard.

The Yard is next hove up, and

The Parral is faſtened round the aft-ſide of the maſt, and round the yard, to faſten the yard to the maſt. The upper and lower rope in the parral have an eye ſpliced in the end, one eye paſſing under the yard, the other over, till both eyes meet on the fore-ſide, and are ſeiſed together with ſpunyarn. The other two ends of the parral-rope are paſſed round the yard and the hind-part of the parral, alternately, till the latter is ſufficiently ſecured to the former; and the whole of the turns are marled together with quarter-ſeiſings, to confine them cloſe in the cavity formed on the back of the ribs.

THE RIGGING OF THE TOPGALLANT-MASTS.

The Top-Rope reeves for the topgallant-maſt as it does for the topmaſts, obſerving to ſtop it to the topgallant-maſt head with ſpunyarn, to keep it ſteady, till it has entered the topmaſt-cap. The ſtop is then cut, and the end of the top-rope made faſt to the eye-bolt in the topmaſt-cap. Sometimes it is rigged abaft the maſt.

The Grommet, made of a rope ſpliced to the ſize of the maſt, is firſt put over the head, and then beat down to the ſtop of the hounds.

SHROUDS are hoiſted, and placed over the topgallant-maſt head, the ſame as the topmaſt.

BACKSTAYS are next hoiſted, and placed over the topgallant-maſt head, the ſame as the topmaſt.

The STAY is hoiſted and placed over all.

FLAG-STAFF STAY goes round the topgallant or royal-maſt head, with a running-eye; is kept cloſe under the truck, by a ſmall cleat nailed on each ſide.

The TOPGALLANT-MAST is then ſwayed up and fidded.

SHROUDS are thruſt through the hole in the end of the topmaſt croſs-trees, and between the topmaſt-ſhrouds, over the futtock-ſtave. A thimble is ſeiſed in the ends that ſets up with a laniard through a thimble ſeiſed in the bight of a ſtrap made faſt round the futtock-plates, cloſe under the dead-eyes, with a turn through the bight.

BACKSTAYS ſet up the ſame as the topmaſt-backſtays, to a ſmall dead-eye in the aft-part of the channel, or in a ſtool abaft the channel.

The FORE-TOPGALLANT STAY comes to the outer end of the jib-boom, and reeves through a thimble; then a thimble is turned in the end, and ſeiſed to a block, and ſet up with a jigger-tackle occaſionally, and ſecured, by a laniard, to the gammoning, or to an eye-bolt in the head.

The MAIN-TOPGALLANT STAY reeves through a block faſtened to the fore-topmaſt head, has a thimble turned in the end of the ſtay, and ſets up to a thimble in a ſpan, made faſt to the treſtle-trees of the fore-maſt, with a laniard cat's pawed to the top-burton tackle, or a handſpec in ſmall ſhips, termed a Spaniſh windlaſs.

The STAYSAIL-STAY is ſpliced into the topgallant-ſtay, ſix feet below the ſtop of the maſt; it then reeves through a block or thimble ſecured to the fore-topmaſt head, takes a turn round the treſtle-trees, and belays there.

The MIZEN-TOPGALLANT STAY trices up to the main-topmaſt head, as the main-topgallant-ſtay trices up to the fore-topmaſt head.

SHIFTING-BACKSTAY, the ſame as thoſe of the topmaſts.

The FLAGSTAFF-STAY ſets up by hand. The fore-maſt one paſſes through a thimble at the jib-boom end, and belays round the fore-ſtay collar; the main one paſſes through a thimble above the fore-topgallant rigging, and belays in the top. Mizen one the ſame to main-topgallant rigging.

ROYAL-MASTS, in Eaſt-India ſhips, are rigged as topgallant-maſts, and generally abaft the maſt.

THE RIGGING OF THE TOPGALLANT-YARDS.

The YARDS are hove on board by the top-rope, as the topſail-yards, and rig with horſes, braces, and lifts, of large ſhips, over the yard-arm, the ſame as the topſail-yards.

Topgallant-Lifts, of ſmall ſhips, are ſingle, and go over the yard-arm with an eye ſpliced in one end; the other end reeves through a thimble in the topgallant-ſhrouds, leads down into the top, and belays round the dead-eyes.

The **Tie** reeves through the ſheave-hole in the hounds of the topgallant-maſt, and clinches round the yard in the ſlings or middle; then has a double block turned in the lower end, and is connected, by the haliards, to a ſingle block laſhed to the after-part of the lower treſtle-trees, under the top: the lower end of the haliards belays round the croſs-piece of the bitts abaft the maſt.

Fore-Topgallant Braces reeve through the block in the pendent. The ſtanding-part makes faſt with a hitch, and the end ſeiſed back round the collar of the main-topmaſt ſtay on each ſide; and the leading-part reeves through a block laſhed round the collar, a little below the ſtanding-part; then leads through a block at the aft-part of the fore-top, and belays to a cleat on each ſide the bellfry.

Main-Topgallant Braces reeve through the block in the pendent, and the ſtanding and leading parts make faſt, and reeve to the collar of the mizen-top ſtay, as the former does to the main-topmaſt ſtay, and lead down into the mizen-ſhrouds.

Mizen-Topgallant Braces are ſingle, and go with a ſplice over the yard-arm. They lead aft through a thimble at the mizen-peek, and come down on the fore-ſide of the taffarel.

Clue-Line Blocks are ſtrapt with two laſhing-eyes, and laſh upon the yard three feet without the ſlings. Pl. 2, fig. 22. The blocks hang under the yard, through which is reeved the clue-line, which is ſtopt with a knot. The leading part leads down the maſt, and into the lower-ſhrouds.

The **Yard** is next ſwayed up, and

The **Parral** fixed as the topſail-yard.

THE RIGGING OF THE ROYAL-YARDS.

If there are royal-maſts, they rig as topgallant-yards: but, if there are no royal-maſts, they ſet flying; in which caſe, the **haliard** reeves through a ſheave-hole cloſe up under the truck; the ſtanding part clinches to the middle of the yard, and the leading part comes down upon deck, or in the top.

Braces go over the yard-arm with an eye; they lead through the ſingle blocks at the next topgallant-maſt head aft, or mizen-peek, and lead down upon deck.

THE RIGGING OF THE MIZEN-YARD.

A **Mizen-Yard** is not often uſed, except in ſhips above 50 guns, and in Eaſt-India ſhips. It is hove on board, as before obſerved, and rigs with a jear-block laſhed between the cleats, as before, and likewiſe a double block round the maſt-head, and both are connected by the jear-fall. Pl. 2, fig. 23. The ſtanding part is clinched round the maſt-head, and the leading part comes to the mizen-chains; and, after the yard is ſwayed up, is made faſt to an eye-bolt hitched and ſeiſed. The remainder of the fall is coiled up, and ſtops to the laniards of the ſhrouds on the ſtarboard ſide.

The DERRICK-BLOCK is ſtrapt with eyes, that go round the yard, and laſh underneath, between the ſlings and the outer yard-arm or peek; the other block is croſs-ſeiſed into the ſtrap, has an eye ſpliced in each end, and lies upon the mizen-cap, and ſeiſes or hangs through the eyes under the cap, or upon the upper ſide of it.

The DERRICK-FALL reeves through the double block at the maſt-head, then through the ſingle block upon the yard. The ſtanding part is again taken up and reeved through the block at the mizen-cap; an eye is then ſpliced in the end, the ſize of the yard-arm, that goes over the peek-end. The leading part leads from the double block at the cap through the treſtle-trees, and make faſt in the mizen-channel on the larboard ſide, as the jears did on the ſtarboard ſide.

BRAIL-BLOCKS are ſtrapt together in one ſtrap, and lie over the yard, and ſeiſe together underneath; the throat-blocks next the cleats to the maſt; the middle-blocks in the middle between the throat-block and peek; the peek-blocks about three or four feet within the cleats at the peek. Pl. 2, fig. 23.

VANGS. The bight is put over the peek-end with an overhand-knot, and the double blocks ſpliced in the lower ends are connected by their falls to a ſingle block, that hooks to an eye-bolt in the upper part of the quarter-piece on each ſide. The ſtanding part makes faſt to the becket in the arſe of the ſingle block, and the leading part leads from the double block, and belays to a cleat nailed on the taffarel fiſe-rail, or round the arſe of the ſingle block.

BOWLINES reeve through a ſingle block ſtrapt with a thimble into an eye-bolt in the lower end of the yard, and through a block hooked to an eye-bolt on each ſide abreaſt the lower end of the yard, or laſhed to the mizen-ſhrouds.

The HORSE for the mizen-ſheets clinches to an eye-bolt on each ſide the taffarel with a thimble, to which is ſtrapt the ſheet-block.

The SIGNAL HALIARD-BLOCK is laſhed to the eye-bolt in the peek of the yard. Pl. 2, fig. 23.

The YARD is then hoiſted, and the

SLINGS go round the maſt-head, and round the yard at the ſlings abaft the maſt.

THE RIGGING OF THE GAFF.

The GAFF, when uſed, is rigged ſimilarly to a mizen-yard, excepting only that it has a throat-haliard inſtead of jears, and a ſpan inſtead of a derrick.

THE RIGGING OF THE DRIVER, OR SPANKER-BOOM.

The **Topping-Lift** goes over the end of the boom with a clove hitch, and comes againſt the ſhoulder; the ends are reeved through a ſingle block laſhed on each ſide the mizen maſt head, and a double block ſpliced in each lower end, which connects by the fall to a ſingle block, hooked in an eye-bolt in the mizen channel on each ſide. The ſtanding part makes faſt to the becket in the arſe of the ſingle block, and the leading part leads from the double block, and belays to a cleat on each ſide the mizen maſt.

Guy-Pendents have a hook and thimble ſpliced in one end, that hooks to the thimbles ſeiſed in the ſtrap. They are ſpliced round the boom perpendicular to the lower block fixed round the horſe within the taffarel; and there ſtopt by cleats nailed on the fore-ſide. A thimble is ſpliced in the inner ends of the pendents, with a luff-tackle hooked to them on each ſide, and are uſed where moſt wanted.

SETTING-UP THE SHROUDS.

Shrouds are ſet up for ſea after the ſtays, as before; as are alſo the top-maſt-ſhrouds and backſtays.

RIGGING AND BENDING THE SAILS.

RIGGING AND BENDING THE FORE-SAIL.

The ſail is laid athwart the main-ſtay, ready for bending, and the ſheet-block is put over the clue on each ſide. The tack-knot is then thruſt through the clue on the back-ſide, and the ſtrap of the clue-garnet block put through the clues; the eyes are brought up on each ſide, and ſeiſed at the top.

Sheets are reeved through the ſheet-block on each ſide, and the ſtanding part ſeiſed to a thimble, in an eye-bolt, a little before the gangway. The leading part reeves through a ſheave-hole in the ſide, a little before the gangway-ladder; then leads forward, and belays round a large cleat in the ſide.

Tacks, ſingle, lead through the block laſhed round the outer end of the boomkin on each ſide, then lead upon the forecaſtle, and belay round a large cleat upon the cat-head, or to the topſail-ſheet bitts.

Tacks, double. The ſtanding part makes faſt round the outer end of the boomkin, and the leading part reeves through a ſingle block laſhed to the clue of the ſail, then through the block at the outer end of the boomkin, and leads in upon the forecaſtle.

Clue-Garnets reeve through the upper block upon the yard on each ſide, then through the block at the clue of the ſail. The ſtanding part is carried up, and made faſt round the yard by its block with a timber-hitch, and the end ſtopt. The leading part comes upon deck, and reeves through the ſheave-hole in the topſail-ſheet bitts, and there belays.

Leech-Lines reeve through the ſpritſail-brace block, under the top, then through the block upon the yard, and the ſtanding part makes faſt with a clinch to the upper bowline-bridle; the leading part then reeves through a double block, at the aft-part of the top, and upon the forecaſtle.

Bunt-Lines reeve through the leg and fall-block, and through a double block at the aft-part of the top; then through a double block under the fore-part of the top, and through the blocks upon the yard, and lead down the fore-ſide of the ſail, and clinch to the cringles in the foot. The fall reeves through the leg-block; the ſtanding part makes faſt round the breaſt-rail or eye-bolt, near the maſt, and the leading part through a ſheave-hole in the breaſt-work, and belays round the rail, or live-blocks under the croſs-piece of the brace-bitts.

Bowlines reeve through a ſingle block laſhed round the collar of the fore-ſtay, or the fore preventer-ſtay, on the bowſprit, and the outer-part reeves on the bowline-bridle, with a thimble ſpliced in the end, and the bridle clinches to the cringle on the leech of the ſail. The leading part leads upon the forecaſtle, and belays to the fore-topſail-ſheet bits.

Slab-Lines reeve through a ſmall block laſhed to the ſtrap of the quarter-block, and the ſtanding part clinches with two legs to the middle bunt-line cringles. The leading part leads to the topſail-ſheet bitts, and belays round the middle of the croſs-pieces.

Spilling-Lines reeve through blocks, laſhed on each ſide of the quarter-blocks of the lower yards, then lead down before the ſail, return upwards under the foot of the ſail, and make faſt round the yard with a timber-hitch.

Life-Lines are ſometimes uſed for the preſervation of the ſeamen. They are generally of worn hawſer-laid rope, and make faſt with two half-hitches round the ſtrap of the lift-block and jear, or tie-blocks, in the middle of the yard.

Yard-Ropes are temporary, and only uſed to get up the ſail; they reeve through tail-blocks that are made faſt round the boom-iron at each yard-arm, and one end comes down and makes faſt to the upper reef-ear-ring. The leading part leads upon deck, through a leading block that laſhes to a timber-head or bolt in the gunwale. The ſail is then run up to the yard, where the men go and paſs the

Ear-Rings, one end of which is ſpliced to the head-cringle, with a long eye; the other end paſſes over the yard-arm without the rigging, through the cringle, alternately, two or three times, and is paſſed round the yard within the rigging, and through the cringle, till the ear-ring is expended, and the end made faſt with two half-hitches. The outer turns are to ſtretch the upper edge of the ſail tight along the yard, and the inner turns to draw it cloſe.

Reef-Ear-Rings the ſame.

Rope-Bands are braided cordage, with an eye made in one end, and one leg longer than the other. The eye of the long-leg is put over the ſhort leg, and the eye of the ſhort leg is thruſt through the eye-let hole at the aft-part of the ſail; then the end of the long leg goes over the head of the ſail, and paſſes the eye of the ſhort leg; and ſo of the reſt. The rope-bands being previouſly reeved through the head of the ſail, they are faſtened to the yards by their heads, as follow: The long legs come over the yard from the fore-ſide, with a round turn between the head of the ſail; the ſhort leg comes up the aft-ſide, and makes faſt with a reef-knot upon the yard. The ſail is then let fall to ſee it is clearly bent. The number of rope-bands, points, and gaſkets, for each ſail, is ſhewn by the annexed Table.

Points are uſually put in the ſail, at the ſail-loft, thus: An overhand-knot is made in the middle of the point, then thruſt through the ſail, and knotted cloſe to the ſail on the oppoſite ſide.

Gaskets go round the yard with a running-eye, two on each quarter, and one on each yard-arm, with a bunt-gaſket in the middle that has two legs, and laſhes to the yard on each ſide of the quarter-blocks.

THE NUMBER OF REEFS, POINTS, ROPE-BANDS, AND GASKETS, IN FITTING EACH OF THE UNDERMENTIONED SAILS.

Number of Guns.	Spritsail Course.				Fore Course.				Main Course.				Total of the Courses.			
	Reefs.	Points.	Rope-Bands.	Gaskets.	Reefs.	Points.	Rope-Bands.	Gaskets.	Reefs.	Points.	Rope-Bands.	Gaskets.	Reefs.	Points.	Rope-Bands.	Gaskets.
100	1	64	64	6	1	90	90	8	1	102	102	8	3	256	256	22
90	1	60	60	6	1	86	86	8	1	98	98	8	3	244	244	22
80	1	58	58	6	1	82	82	8	1	94	94	8	3	234	234	22
74	1	62	62	6	1	86	86	8	1	98	98	8	3	246	246	22
64	1	58	58	6	1	80	80	8	1	92	92	8	3	230	230	22
50	1	52	52	4	1	72	72	6	1	82	82	6	3	206	206	16
44	1	46	46	4	1	66	66	6	1	74	74	6	3	186	186	16
38 & 36	1	50	50	4	2	132	66	6	2	152	76	6	5	334	192	16
32	1	50	50	4	2	128	64	6	2	148	74	6	5	326	188	16
28	1	50	50	4	2	128	64	6	2	148	74	6	5	326	188	16
24	1	40	40	2	2	112	56	4	2	128	64	4	5	280	160	10
20	1	36	36	2	2	104	52	4	2	116	58	4	5	256	146	10
Sloops.	1	32	32	2	2	92	46	4	2	108	54	4	5	232	132	10

Number of Guns.	Fore Topsails.				Main Topsail.				Mizen Topsail.				Total of the Topsails.			
	Reefs.	Points.	Rope-Bands.	Gaskets.	Reefs.	Points.	Rope-Bands.	Gaskets.	Reefs.	Points.	Rope-Bands.	Gaskets.	Reefs.	Points.	Rope-Bands.	Gaskets.
100	3	180	52	6	3	210	61	6	2	92	42	4	8	482	155	16
90	3	171	50	6	3	198	58	6	2	88	40	4	8	457	148	16
80	3	165	48	6	3	192	56	6	2	86	40	4	8	443	144	16
74	3	177	52	6	3	204	60	6	2	90	41	4	8	471	153	16
64	3	165	49	6	3	189	56	6	2	85	39	4	8	439	144	16
50	3	147	43	4	3	168	49	4	2	72	33	4	8	387	125	12
44	3	135	39	4	3	150	44	4	2	66	30	2	8	351	113	10
38 & 36	3	138	41	4	3	153	46	4	2	70	33	2	8	361	120	10
32	3	135	40	4	3	150	44	4	2	68	32	2	8	353	116	10
28	3	135	41	4	3	150	44	4	2	69	30	2	8	354	114	10
24	3	117	34	4	3	132	38	4	2	62	27	2	8	311	99	10
20	3	112	32	4	3	132	38	4	2	58	26	2	8	302	96	10
Sloops.	3	99	30	4	3	111	32	4	2	48	22	2	8	258	84	10

If more Points, Rope-bands, or Gaskets, are used than in the table, they are made on board.

When Spritsail-Courses have cross reefs, the number of points is twice the number of rope-bands, save 12.

When Topsails have four-reefs, let one-third more be added than is allowed in this table.

RIGGING AND BENDING THE MAIN-SAIL.

The ſail is laid athwart ready for bending, and the

Sheet-Blocks, Tack and Clue-Garnet Blocks, are placed in the clues, as for the fore-ſail.

Sheets reeve through the ſheet-block at the clues. The ſtanding part is ſeiſed to an eye-bolt with a thimble on the quarters. The leading part leads through a ſheave-hole on the ſame ſide under the half-deck, and belays to a range-cleat in the waiſt.

Tacks, ſingle, reeve through the ſheave-hole in the cheſtree, one on each ſide, and through a ſheave-hole in the ſide, and belay round a large range-cleat in the aft-part of the waiſt.

Tacks, double. The ſtanding part clinches to an eye-bolt before the cheſtree, and the leading part reeves through a ſingle block, laſhed to the clue of the ſail; then leads in upon deck through the ſheave-hole in the cheſtree ſide.

Clue-Garnets, as for the fore-ſail.

Leech-Lines reeve through the block upon the yard, and the outer end makes faſt with a clinch to the upper bowline-bridle. The leading part reeves through a double block at the fore-part of the top, and through a double block at the aft-part of the top: a ſingle block is turned into the lower end, and a whip-fall reeved through it. The ſtanding part makes faſt to the breaſt-rail, and the leading part through a block under the breaſt-rail, and belays round the rail, or through a block under the croſs-piece of the bitts, round the maſt; and the ſtanding part to an eye-bolt in the deck, &c.

Bunt-Lines reeve as for the fore-ſail, and lead forward upon the forecaſtle.

Bowlines reeve through a double-block, that, with a ſtrap, laſhes round the fore-maſt five feet above the forecaſtle, and the outer part reeves upon the long leg with a thimble. The lower bridle is the longeſt, and clinches to the lower cringle upon the ſail. In the other end is ſpliced a thimble, through which reeves the upper leg, that clinches to the upper cringle. The ſtarboard-bowline belays on the larboard, and the larboard-bowline leads over and belays on the ſtarboard-ſide. Four feet from the bridle is a thimble, ſpliced and pointed on each bowline, called a lizard, to which is hooked a bowline-tackle that makes faſt to the bitts, and is bowſed upon until the bowline is made faſt to the bitts.

Slab-Lines, as the fore-ſail.

Spilling-Lines, }
Life-Lines, } as the fore-ſail.

Yard-Ropes, and bending as the fore-ſail.

EAR-RINGS,
ROPE-BANDS,
POINTS,
GASKETS,
} as the fore-ſail.

RIGGING AND BENDING THE MIZEN-COURSE.

The EAR-RING reeves, with an eye in one end, round the cringle in the peek of the ſail, and makes faſt round the peek, as the other ear-rings; and the ear-ring at the nock of the ſail the ſame as the peek.

LACING is ſpliced to the peek ear-ring cringle, and laces round the yard or gaff through the eyelet-holes in the head of the ſail, and makes faſt to the nock ear-ring cringle. Lacing round the maſt is ſpliced to the nock-cringle, and laces round the maſt backwards and forwards on the fore-ſide, and through each cringle on the fore-leech of the ſail, making faſt to the tack at the lower end.

The TACK ſets up with a laniard reeved through the tack-cringle in the ſail, and through an eye-bolt in the deck.

The SHEET reeves through a block or horſe at the fore-part of the taffarel, and through another block, that hooks to the thimble in the clue of the ſail, then again through the block on the horſe, and the leading part belays round a cleat on the ſide.

BRAILS. Throat, middle, and peek, brails reeve through blocks on the yard or gaff, and make faſt to cringles on the after-leech of the ſail on each ſide. The throat-brails lead down by the maſt; and middle brails lead down to the after-mizen ſhroud on each ſide; and the peek-brails to the fiſe-rail on each quarter.

The FANCY-LINE has two ſpans, with a thimble ſeiſed in the bight, and a thimble ſpliced in each end; one thimble reeves upon the throat-brail, the other on the middle-brail, on each ſide the ſail. The fancy-line reeves through blocks laſhed at the peek end, and each end bends to the thimble in the bight of the ſpan on each ſide. When the mizen is ſet, the brails are hauled up by the fancy-line, that they may be ſlack, and not girt the lee-ſide of the ſail.

RIGGING AND BENDING THE JIB.

The DOWNHAULER reeves through a ſmall block that laſhes to the traveller on the jib-boom, then leads up through the hanks, and bends to the head of the jib. The leading part leads in upon the forecaſtle.

The HALIARDS reeve through the lower ſheave of the cheek-block at the fore-topmaſt head, from aft on the ſtarboard-ſide, and bend to the head of the ſail. The leading part leads abaft the top to the after part of the forecaſtle.

Large ſhips have a ſingle block turned into the haliards, and a whip-fall; the ſtanding part making faſt into the ſide.

SHEETS. The bight is bent to the clue of the ſail, and a ſingle block turned in each inner end, that reeves a whip-fall. The ſtanding part makes faſt to a timber-head, and the leading-part leads in upon the forecaſtle, and belays to a timber-head before the ſhrouds on each ſide.

STAY reeves through the ſheave in the cheek-block at the fore-topmaſt head from aft on the ſtarboard ſide, then through the hanks, and clinches to the traveller upon the boom: a double block is then turned in the lower end, and connects by its fall to a ſingle block, laſhed to the after part of the fore-maſt treſtle-trees, leads upon deck, and belays to the main-top bowline-bitts.

OUTHAULER reeves through a ſheave-hole at the outer end of the jib-boom, and clinches to the ſpan-ſhackle of the traveller. The other end has a double block turned in, which connects, with its fall, a ſingle block hooked to an eye-bolt in the fore part of the bowſprit-cap, and the fall leads in on the forecaſtle.

INHAULER reeves through a ſmall block laſhed on the traveller: the ſtanding part makes faſt to an eye-bolt in the ſide of the bowſprit-cap, and the leading part comes in upon the forecaſtle.

RIGGING AND BENDING THE FORE-TOPMAST STAYSAIL.

The STAY reeves through the hanks, then makes faſt with a running eye round the bowſprit, between the collars and ſpritſail-yard, then reeves through the upper ſheave of the cheek-block, at the fore-topmaſt head, on the larboard-ſide; has a double block turned into the lower end, and connects, by its fall, to a ſingle block laſhed to the after part of the fore-maſt treſtle-trees, leads upon deck, and belays to the main-top bowline-bitts.

The DOWNHAULER reeves through a ſmall block that laſhes at the tack of the ſail, then leads through the hanks, and bends to the head of the ſail, and the leading part comes upon the forecaſtle.

HALIARDS reeve through the lower ſheave of the cheek-block of the fore-topmaſt head on the larboard ſide, and bend to the head of the ſail. The leading part reeves abaft the top to the after part of the forecaſtle, and belays to a cleat in the ſide.

SHEETS. The bight is bent to the clue of the ſail, and leads through a ſingle block on each ſide upon the forecaſtle.

OUTHAULER reeves through a block laſhed at the outer end of the bowſprit: the ſtanding part makes faſt to the tack of the ſail, and the leading part comes in upon the forecaſtle.

RIGGING AND BENDING THE FORE-STAYSAIL.

The **Fore-Staysail** bends with hanks to the fore-preventer ſtay.

The **Haliards** reeve through a block, under the fore-top, and bend to the head of the ſail and lead down upon the forecaſtle.

The **Downhauler** reeves through a ſmall block at the tack of the ſail, then leads up through the hanks, and bends to the head of the ſail, and the leading part comes down upon the forecaſtle.

Sheets. The bight is bent to the clue of the ſail, and leads in upon the forecaſtle.

RIGGING AND BENDING THE FORE-TOPSAIL.

The **Fore-Topsail** is ſwayed up into the top by the topſail-haliards, that make faſt to ſlings round the middle of the ſail, and are then laid in the fore part of the top fair for bending.

Sheets are firſt paſſed through the fore part of the clue of the ſail, and ſtopt with an overhand-knot. They reeve through the ſhouldered block at the lower yard arm, then through the quarter block, and come down before the maſt: reeve through the ſheave-holes in the bitts, and are there belayed.

Clue-Lines. The ſtraps of the blocks are paſſed through the clues of the ſail, and brought round the clue to the fore part, and ſecurely ſeiſed. The clue-lines are paſſed the ſame at the clue-garnets of the lower ſails, and ſometimes have no blocks, but bend to the clue of the ſail.

Bunt-Lines reeve through the block upon the yard, come down on the fore ſide of the ſail, and clinch to the cringles in the foot. The leading part reeves through a ſingle block, laſhed cloſe under the topmaſt croſs-trees, leads down through the ſquare of the top, and belays to the ſhrouds.

Bowlines reeve through the blocks at the bowſprit-cap. The outer part reeves on the lower bowline-bridle with a thimble, as the main-ſail. The leading part comes upon the forcaſtle, and belays to the topſail-ſheet bitts.

Reef-Tackle Pendents reeve through the upper ſheave in the ſiſter block in the topmaſt-ſhrouds, then through the ſheave-hole in the yard-arm, and clinch to the reef-tackle cringle in the ſail.

Reef Ear-Rings reeve through their bights in each reef-cringle, and ſtop to the next cringles and the head of the ſail, till uſed.

Spilling-Lines of topſails have two legs, which are each made faſt with a timber-hitch round the quarters of the topſail-yard, then lead down on the aft-ſide, return upwards under the foot of the ſail, and reeve through a block on the fore ſide, laſhed to the tie-block on the yard, and then lead upon deck abaſt the maſt.

Life-Lines as for the fore-ſail.

EAR-RINGS,
ROPE-BANDS, } as the foreſail.
POINTS,

GASKETS. The yard-arm gaſket reeves with an eye round the yard-arm within the cleats. Quarter-gaſkets reeve between the arm and the middle. Bunt-gaſkets have two legs, and laſh to the yard, with an eye on each ſide of the tie-block, and faſten thereto, when the ſail is hauled up in the bunt.

RIGGING AND BENDING THE MAIN-TOPSAIL.

The MAIN-TOPSAIL is ſwayed up into the top, as the fore-topſail.

SHEETS,
CLUE-LINES, } as the fore-topſail.
BUNT-LINES,

BOWLINES reeve through blocks laſhed round the fore-maſt head, cloſe under the cap: the outer part reeves on the lower bowline-bridle, with a thimble, as the fore-topſail. The leading part comes down through the ſquare hole of the top, reeves through a ſheave-hole in the main-top bowline-bitts upon the forecaſtle, and there belays.

REEF-TACKLE PENDENTS,
EAR-RINGS,
ROPE-BANDS, } as the fore-topſail.
POINTS,
GASKETS,

RIGGING AND BENDING THE MIZEN-TOPSAIL.

The MIZEN-TOPSAIL is ſwayed up as the other topſails, in large ſhips.

SHEETS,
CLUE-LINES, } as the fore-topſail.
BUNT-LINES,

BOWLINES bend to the ſail as the fore-topſail, and reeve through a ſingle block ſeiſed to the main-ſhrouds on the oppoſite ſide near the futtock-ſtaff; they lead down through a ſeiſing-truck upon the quarter-deck, and belay round a pin in the fife-rail.

REEF-TACKLE PENDENTS,
EAR-RINGS,
ROPE-BANDS, } as the fore-topſail.
POINTS,
GASKETS,

RIGGING AND BENDING THE FORE-TOPGALLANT SAIL.

The ſail is either ſwayed up to the topmaſt croſs-trees by the clue-lines, or bent to the yard below. It is hauled out to the yard-arm by the ear-rings, and bends or laces to the yard, as before obſerved.

SHEETS and CLUE-LINES are bent to the clues of the ſail, and lead upon deck, as the fore-topſail.

BUNT-LINES reeve through a ſmall block ſeiſed to the topgallant-maſt head, then through a thimble ſeiſed to the tie, cloſe down upon the yard, and bend, with legs, to the cringles in the foot of the ſail. The leading part comes down into the top.

BOWLINES reeve through the thimbles at the jib-boom end, and faſten to the ſail as the topſail, only with a toggle to caſt off the bowline for ſending the yard down. The leading-part comes upon the forecaſtle, and belays to a pin in the breaſt-hook.

The JACK-BLOCK is uſed for ſending topgallant-yards up or down: it is ſtrapped with a ſeiſing-eye, through which reeves a rope, with an eye ſpliced in one end, and a double walnut-knot made at the other end, called a button-and-loop. It goes round the maſt, is ſecured by the knot being thruſt through the eye, and is triced up or down the maſt by the togallant-tie, which bends through the eye of the ſtrap. When the yards are ſwayed up, the top-rope reeves through the jack-block, and makes faſt with a hitch, firſt taken round the yard in the ſlings, then ſtopt at the outer quarter and eye-bolt in the yard-arm. When lowered, the ſame, except the ſtop at the eye-bolt. The rigging is taken off or put on by men at the maſt-head, when the yards are ſwayed up or lowered down.

RIGGING AND BENDING THE MAIN TOPGALLANT-SAIL.

As the former; the bowlines reeving through the ſheave-holes in the after-part of the fore-topmaſt croſs-trees, and leading down upon deck.

RIGGING AND BENDING THE MIZEN-TOPGALLANT SAIL.

As the former; the bowlines reeving through the ſheave-holes in the aft-part of the main-top maſt croſs-trees.

RIGGING AND BENDING THE ROYALS.

ROYALS are ſet flying; the clues laſhed to the topgallant yard-arm.

Eaſt-India ſhips ſometimes have royal maſts, and then the royals rig ſimilar to topgallant-ſails.

RIGGING AND BENDING THE MAIN-STAYSAIL.

This ſail is ſeldom bent in ſhips but at ſea, though commonly in brigs. It bends to the main-ſtayſail ſtay with hanks and ſeiſings.

STAY. The upper end clinches round the main-maſt head above the rigging, and the lower end ſets up with a luff-tackle round the fore-maſt.

HALIARDS reeve through a ſingle block bent to the head of the ſail. The ſtanding part makes faſt round the main-maſt head, and the leading part reeves through a block laſhed upon the rigging under the top, and leads down abaft the maſt: a double block is turned into the end, connected by its fall to a ſingle block, hooked to an eye-bolt in the ſides abaft the main-maſt.

The DOWNHAULER reeves up through the hanks, bends to the head of the ſail, and belays to the main-top bowline-bitts.

TACK bends to the tack of the ſail, and laſhes the tack of the ſail to the fore-maſt or bitts.

SHEETS are doubled, and the bight put through the clue of the ſail; the ends are reeved through, have a ſingle-block ſpliced into each end, and falls reeved. Their ſtanding parts are made faſt round a timber-head on each ſide the fore part of the quarter-deck, and the leading parts through a ſnatch-block on each ſide, and belay to the next timber-head. Sometimes a luff-tackle is clapt on to bowſe the ſheets aft.

RIGGING AND BENDING THE MIZEN-STAYSAIL.

This ſail bends to the mizen-ſtayſail ſtay with hanks and ſeiſings.

The STAY clinches round the head of the mizen-maſt, then reeves through a thimble ſeiſed in a collar laſhed round the main-maſt, and ſets up with a laniard through a thimble turned into the ſtay, and an eye-bolt in the deck abaft the maſt. In ſmall ſhips, the mizen-ſtayſail bends to the mizen-ſtay.

HALIARDS reeve through a block at the head of the ſail. The ſtanding part makes faſt round the mizen-maſt head, and the leading part reeves through a block laſhed to the treſtle-trees, then through a leading-block in the ſide, and belays round a timber-head.

The DOWNHAULER reeves up through a block made faſt to the collar of the ſtay, then through the hanks, and bends to the head of the ſail. The leading part belays round the fore-brace bitts abaft the main-maſt.

BRAILS reeve through blocks laſhed on each ſide the collar, then through thimbles in a ſtrap put through the ſail, and make faſt to a cringle on the after-leech of the ſail. The leading part belays round the breaſt-rail on the quarter-deck.

The TACK ſplices to the cringle in the tack of the ſail, and laſhes it to an eye-bolt in the deck abaft the main-maſt.

SHEETS bend to the clue of the ſail, with a long and ſhort leg, having a thimble ſpliced in the latter. The long leg reeves through a block or bolt in the ſide, and through the thimble in the ſhort leg, and belays round a timber-head in the ſide.

RIGGING AND BENDING THE MAIN-TOPMAST STAYSAIL.

This ſail bends to the topmaſt preventer-ſtay, with hanks and ſeiſings.

HALIARDS reeve from the aft-ſide through the cheek-block at the main-topmaſt head on the larboard-ſide, and come down and bend to the head of the ſail. The leading part leads through a block in the ſide, and belays to a pin in the fiſe-rail.

The **DOWNHAULER** reeves through a block ſeiſed to the ſtrap of the main-bowline block; it is then carried up and reeved through another block ſeiſed to the topmaſt preventer-ſtay, at the catharpins, then upwards through the hanks, and bends to the head of the ſail.

BRAILS reeve through blocks that are laſhed to the ſtrap of the main-bowline block; they are then carried up and reeve through other blocks, ſeiſed to the topmaſt preventer-ſtay at the catharpins, on each ſide, and make faſt on each ſide the ſail to a cringle on the after-leech.

TACKS are doubled; the bight is put through the tack of the ſail, the ends are reeved through the bight, and lead through a thimble ſeiſed on the lower-ſhrouds on each ſide; they then lead down, and belay round a cleat laſhed to the ſhrouds near the deck.

SHEETS are doubled; the bight is put through the clue of the ſail, and the ends through the bight. A block is ſpliced in each end, and falls reeved. Their ſtanding parts make faſt on each ſide to a boatſkid next the quarter-deck, and the leading parts reeve through a block on the gunwale on each ſide abaft the gangway, and belay to a pin in the boatſkid.

RIGGING AND BENDING THE MIDDLE-STAYSAIL.

This ſail bends to the middle ſtayſail-ſtay with hanks and ſeiſings.

STAY. The ſtanding part reeves up through the hanks, and makes faſt to a thimble ſeiſed in a ſtrap or grommet, made faſt round the fore-topmaſt, under the parral. The leading part reeves through the upper ſheave at the main-topmaſt head: a double block is then turned into the end, and connects, by its fall, with a ſingle block that laſhes to the main treſtle-trees, and the fall leads upon deck abaft the maſt, by which it is ſet up.

HALIARDS reeve through the lower ſheave of the cheek-block at the main-topmaſt head, and bend the head of the ſail; the other end leads upon deck abaft the maſt.

The DOWNHAULER reeves through a ſingle block ſeiſed to the ſtay at the nock of the ſail, then leads up through the hanks, and bends to the head of the ſail. The leading part leads upon deck abaft the fore-maſt.

TACKS are doubled; the bight is put through the tack of the ſail, and the ends reeved through the bight, and each end through a thimble ſeiſed in the fore-topmaſt ſhrouds, leading down and belaying in the top.

SHEETS are doubled; the bight is put through the ſheet of the ſail, the ends are reeved through the bight, and each end through a block on the gunwale abaft the gangways, and belay round a boatſkid.

TRICING-LINE clinches to the grommet round the fore-topmaſt, and reeves through a block under the fore-topmaſt croſs-trees, and leads down into the top.

RIGGING AND BENDING THE MAIN-TOPGALLANT STAYSAIL.

This ſail bends to the ſtay with hanks and ſeiſings.

STAY. The upper end ſplices into the topgallant-ſtay below the rigging, and the lower end reeves through a thimble ſeiſed round the fore-topmaſt croſs-trees, leading down and making faſt in the top.

HALIARDS reeve through a ſheave-hole a little above the hounds of the main topgallant-maſt; one end bends to the head of the ſail, and the leading part comes down upon deck, and belays to the bitts on the quarter-deck abaft the maſt.

The DOWNHAULER reeves up through the hanks, and bends to the head of the ſail; and the leading part comes down upon deck abaft the main-maſt.

TACKS, } as the middle-ſtayſail.
SHEETS, }

RIGGING AND BENDING THE MIZEN-TOPMAST STAYSAIL.

This ſail bends to the mizen-topmaſt ſtay with hanks and ſeiſings.

The HALIARD reeves through the ſheave-hole in the topmaſt above the rigging, or through a block laſhed round the maſt-head; one end bends to the head of the ſail, the other end leads down upon deck abaft the maſt.

The DOWNHAULER reeves up through the hanks, and bends to the head of the ſail, the other end leads down upon and belays round the breaſt-rail.

TACKS are doubled; the bight is put through the tack of the ſail; the ends are reeved through the bight, and through a thimble ſeiſed to the main-topmaſt ſhrouds on each ſide, leading down and belaying in the top.

SHEETS are doubled; the bight is put through the clue of the ſail; the ends are reeved through the bight, and through a thimble ſeiſed in the mizen-ſhrouds on each ſide, leading down and belaying round a pin in the hand-rail on each ſide.

RIGGING AND BENDING THE MIZEN-TOPGALLANT STAYSAIL.

This ſail bends to the mizen-topgallant ſtay with the hanks and ſeiſings.

The **HALIARD** reeves through the hole above the topgallant-maſt hounds; one end bends to the head of the ſail, the other leads down upon deck abaft the maſt, and belays round a pin in the hand-rail.

The **DOWNHAULER** reeves up through the hanks, and bends to the head of the ſail; the other end leads to the main-top, and belays round the top-rail.

TACKS are doubled; the bight is put over the tack of the ſail, and the ends through the latter; they are then reeved through a thimble ſeiſed in the main-topmaſt ſhrouds on each ſide, and lead into the top.

SHEETS are doubled, and put through the clue of the ſail at the tacks, and reeved through a thimble ſeiſed in the mizen-ſhrouds, on each ſide near the catharpins, then lead down upon deck, and belay round a pin in the ſhroud-rack.

RIGGING AND BENDING THE SPRITSAIL.

The **SPRITSAIL** bends to its yard as the fore-ſail.

CLUE-LINES reeve though the blocks upon the yard, and bend or reeve through a block at the clue of the ſail, and lead in upon the forecaſtle.

BUNT-LINES, double, reeve through a block round the yard, and clinch to the cringles at the foot of the ſail, and lead in upon the forecaſtle.

BUNT-LINES, ſingle, reeve through a block in the ſlings of the yard, and clinch with legs to the cringles in the foot of the ſail, and lead in upon the forecaſtle.

SHEETS, double, reeve through a block ſeiſed to the clue of the ſail; the ſtanding part clinches to an eye-bolt in the bow, and the leading part comes on board.

SHEETS, ſingle, bend to the clue of the ſail and lead in board.

RIGGING AND BENDING THE SPRITSAIL-TOPSAIL.

The **SPRITSAIL-TOPSAIL** bends to the yard with lacing and ear-rings.

CLUE-LINES the ſame as the ſpritſail.

SHEETS reeve through the ſheet-block at the ſpritſail-yard arm, and hook to the clue of the ſail, and lead in upon the forecaſtle through a block laſhed on each ſide of the bowſprit.

RIGGING AND BENDING THE DRIVER OR SPANKER SAIL.

This ſail is bent as a temporary matter, and is made faſt at the peek and nock with an ear-ring, as the mizen, and makes faſt to the yard and gaff with four or five pair of haliards, that reeve through blocks made faſt with tails round the yard or gaff, one end of the haliard being bent to the head of the ſail. The throat-haliards reeve with a double and ſingle block: the former is made faſt round the maſt-head, and the latter hooks to the nock-cringle on the ſail.

The TACK is ſet tight with a luff-tackle, that hooks to the cringle in the tack of the ſail and to an eye-bolt in the throat of the boom.

The SHEET reeves through a block or ſheave-hole at the outer end of the boom, and bends to the clue of the ſail; a luff-tackle is cat's-pawed to the other end of the ſheet; the inner block hooks to the taffarel, and the fall leads in upon the quarter-deck. When this ſail is bent to the maſt, yard, or gaff, inſtead of the mizen, it bends exactly the ſame, only the foot of the ſail is extended on the boom as above.

DOWNHAULER reeves through a block made faſt to the middle of the driver-yard, and leads down to the taffarel.

RIGGING AND BENDING THE LOWER STUDDINGSAILS.

Theſe ſails are bent to a yard at the head, with rope-bands, the ſame as other ſails.

OUTER-HALIARDS reeve through a ſpan-block, fixt round the lower cap, and through a block at the lower yard-arm, Pl. 2, fig. 20, and bend between the cleats of the ſtuddingſail-yard; the other end leads down upon deck.

INNER-HALIARDS bend to the upper inner-cringle on the head of the ſail, then reeve through a tail-block made faſt round the quarter of the lower-yard, and through another block made faſt round the yard near the maſt, and lead down upon deck.

TACKS bend to the outer clue on the foot of the ſail, and reeve through a block laſhed round the outer-part of the boom; they are carried aft, and lead through a block laſhed to the main-chains, come through a port, and belay round a cleat in the waiſt. The other is carried forward, and reeves through a block laſhed to the bees of the bowſprit. The main-ſtuddingſail-tack reeves through a block at the end of the boom, and through a block laſhed to an eye-bolt in the buttock; and leads in through a ſnatch-block laſhed on the quarter on each ſide.

SHEETS are doubled; the bight is put over and the ends through the inner clue on the foot of the ſail: one leads forward, the other aft.

The FORE STUDDINGSAIL ſets flying, or with a boom at the foot. If flying, the foot of the ſail ſpreads on a yard that rigs with a ſpan clinched round each yard-arm. A guy is bent to an eye that is croſſed in the middle of the ſpan, and leads aft through a block laſhed to the main chains, comes in through a port, and belays round a cleat in the waiſt. The ſail, thus rigged, has no tacks.

BOOMS rig as follow: The hook in the inner end hooks to an eye-bolt in the ſide oppoſite the maſt, and the main-ſtuddingſail-boom to an eye in the iron ſtrap on the fore-part of the main channel: the end is confined down with a laſhing to the chain-plates. The inner end of the fore-boom is confined down with a tackle made faſt round the inner end of the boom, and the lower block is hooked to an eye-bolt in the wale. The guy clinches round the middle of the boom, reeves through a block laſhed round the ſpritſail-yard, and comes in upon the forecaſtle.

RIGGING AND BENDING THE TOPMAST-STUDDING-SAILS.

Theſe ſails bend to a yard at the head with rope-bands, or are laced, as the other ſails, and the foot is ſpread upon the boom that ſlides out from the extremities of the main and fore yard through the boom-irons.

HALIARDS reeve through a block in the ſpan round the topmaſt-head, under the cap, and through the jewel-block, Pl. 2, fig. 21, that is ſtrapt with a thimble through an eye-bolt in the extremities of the topſail-yards, and bend to the topmaſt-ſtuddingſail-yard: the other end leads down upon deck, and belays to the bowline-bitts.

The DOWNHAULER reeves through a block laſhed to the outer clue of the ſail, and through a thimble on the outer leech: it is then made faſt to the topmaſt-ſtuddingſail-yard, juſt within the ear-ring, and leads into the waiſt.

TACKS bend to the outer lower clue of the ſail; they reeve through a block laſhed to the outer end of the boom, and lead aft through a block at the gangway, and belay to a timber-head. Tack of the main-topmaſt-ſtuddingſail leads in upon the after-part of the quarter-deck through a block laſhed upon the quarter.

SHEETS are doubled; the bight is put through the lower inner clue, and the ends through the bight. The after-ſheet of the fore-topmaſt ſtuddingſail leads in abaft the fore ſhrouds. The main hauls in upon the waiſt. The fore ſheet of the fore-topmaſt-ſtuddingſail leads in upon the forecaſtle; the after one before the ſhronds. On the middle of the boom is faſtened a ſelvagee, or a ſtrap with a thimble, to which is hooked the top-burton-tackle, to ſupport the boom in the middle.

The BOOMS are run out by the tackles. The ſtrap of the double block makes faſt through a hole in the heel of the boom, and the outer block to the boom-iron, and the fall leads along the yard.

RIGGING AND BENDING THE TOPGALLANT-STUDDING-SAIL.

This ſail bends to a yard at the head, as before, and the foot is ſpread on a boom that ſlides out at the extremities of the topſail-yards.

The HALIARD reeves through a block ſeiſed round the head of the topgallant-maſt, above the hounds, or rigging, then through the jewel-block, Pl. 2, fig. 22, ſtrapt with a thimble through an eye-bolt at the extremities of the topgallant-yard, and bends to the topgallant-ſtuddingſail-yard; the other end leads down the maſt into the top, and belays there.

The DOWNHAULER makes faſt to the outer yard-arm within the ear-ring, and leads down into the top.

TACKS bend to the outer lower clue of the ſail, and reeve through a thimble in a ſtrap round the outer end of the topmaſt-ſtuddingſail-boom; and, in merchant-ſhips that have no boom, through a thimble in a ſtrap round the outer yard-arm of the topmaſt-ſtuddingſail, and leads aft the tack of the fore-topgallant-ſtuddingſail to the main-chains. The main leads to the quarter-piece.

SHEETS are doubled; the bight is put through the lower inner clue of the ſail, and the ends paſſed through the bight; one end leads forward, and makes faſt to the quarter of the topſail-yard, and the other end leads into the top, and belays to the topmaſt-ſhrouds.

METHOD OF TAKING OUT A FIRST RATE's MAIN MAST BY MEANS OF TWO TOPMASTS. Pl. 9.

The topmaſts of a firſt rate ſhip are ſixty-nine feet long, and they are ſtrong enough to take the main maſt out. Therefore, after ſecurely laſhing the topmaſts together, near the head, or upper end, ſo as to form ſheers, and laſhing the blocks at the ſheer-head, meaſure the diſtance from the heel of the maſt to the upper ſide of the quarter-deck, which will be found to be about forty-five feet: then ſet off that diſtance down the maſt from the lower part of the ſheer-head blocks, and let that be the upper part of the lower blocks on the maſt, allowing for the laſhing's ſheeting, which will be quite ſufficient to clear the heel of the quarter-deck and the gunwale on either ſide, as repreſented in fig. 1, Pl. 9, prefixed to the title page.

As the blocks on the maſts are laſhed nearer to the heel than the head, the head of courſe muſt be the heavieſt; to ſteady which, let a block be laſhed at each ſheer-head, and likewiſe on the maſt, to act as ſteadying tackles in lowering the maſt, as in fig. 3, Pl. 9. But, before the heel of the maſt is clear of the quarter-deck, there muſt be, as repreſented in fig. 2, two large double blocks laſhed one on each ſide of the heel of the maſt, and another laſhed to the heel or lower end of each ſheer, which will form a tackle on each ſide; ſo that, when the heel of the maſt is clear of the quarter-deck, the head of the maſt may not incline too ſuddenly. A tackle may be brought from the forecaſtle to the heel likewiſe, to haul it over on either ſide as in fig. 3.

In this manner may the maſts of any ſhip be gotten in or out with the greateſt ſafety.

RIGGING.

RIGGING.

PART IV.

DESCRIPTION OF OPERATIONS AND PARTICULARS GENERALLY PERFORMED WHILE FITTING THE SHIP IN HARBOUR, OR WHEN AT SEA.

AWNINGS. The ridge-rope of the poop-awning reeves through the trucks, ſerved along the midſhips of the awning; the ſtanding part makes faſt with a clinch round the enſign-ſtaff, the leading part round a roller fixed in the aftſide of an iron claſp-hoop on the mizen-maſt, and ſets up, by a fall, which connects a double block, turned into its end, to a ſingle block laſhed to an eye-bolt in the deck. The ſide-ropes reeve through trucks, ſerved alongſide the awning, with an eye ſpliced into the end of the ſtanding part, through which it is ſeiſed with ſpunyarn to the fore leg of the mizen-ſhrouds on each ſide. The leading part reeves through a ſheave-hole in the upper part of a wooden ſtantion, fixed againſt the ſtern on each ſide, and ſets up with a ſmall tackle.

The ridge-rope of the quarter-deck awning reeves through the trucks in the middle of the awning, and clinches through an eye in the fore ſide of the claſp-hoop on the mizen-maſt; and the leading part reeves round a roller, fixed in the aftſide of an iron claſp-hoop on the main-maſt, and ſets up as the poop-awning. The ſide-ropes reeve through trucks along the ſides of the awning, and ſeiſe to the foremoſt leg of the main-ſhrouds; the leading part reeves through a block, ſeiſed to the foremoſt leg of the mizen-ſhrouds, and ſets up as the ridge-rope.

The ridge-rope of the main-deck awning reeves through the trucks in the middle, and clinches through an eye in the claſp-hoop on the main-maſt; and the leading part reeves round a roller, fixed in the aftſide of an iron claſp-hoop on the fore-maſt, and ſets up as the poop-awning. The ſide-ropes reeve through the trucks, and are ſeiſed to the foremoſt leg of the fore-ſhrouds; the leading part reeves through a block, ſeiſed to the foremoſt leg of the main-ſhrouds; and ſets up as the quarter-deck awning.

The awnings are ſpread and ſuſpended by the middle thus: In the after-ends three thimbles are ſeiſed, one in the middle, and one on each ſide, that go over hooks, ſeiſed to the hoop on the maſt and ſhrouds at the ſides. The fore part is hauled forward, ſtopt to the ſhrouds, and laced acroſs through eyelet-holes, made at the edges of each awning. In harbour, the awnings ſpread to wooden ſtantions, bolted along the ſides; and, the hands being few, they are hauled forward by tricing-lines, reeved through ſingle blocks, ſeiſed to uprights inſtead of the maſts. In the middle of the awnings, the legs of the crowfoot reeve through the holes in the euphroe, and make faſt to the ſtrands of the ridge-rope, at equal diſtances; and that is ſuſpended by the haliard that is ſpliced round the euphroe, and reeves through a ſingle block ſeiſed to the ſtay.

BENTINCK-SHROUDS, generally prepared at ſea, have four or ſix ſhort legs, with an eye ſpliced in the end of each, which ſeiſes round the futtock ſtaff and ſhrouds, cloſe up to the catharpins. The bights of thoſe legs are parcelled and ſerved together, and a large thimble ſeiſed therein; in which is turned-in another large thimble. The bight of the bentinck-ſhrouds is parcelled and ſerved in the way of this thimble, round which they are ſeiſed with a round ſeiſing. A thimble, or dead-eye, is turned into the lower ends, which ſets up with a laniard to a ſpare dead-eye, or eye-bolt, in the chains, on the oppoſite ſides.

BOATS' ROPES. Neceſſary ropes belonging to theſe are: The PAINTER, which ſplices round a thimble in the ring-bolt within the bow. The STERNFAST ſplices round a thimble in the ring-bolt within the ſtern. FENDERS are made of worn cable-laid rope, doubled three or four times, and ſewed together with ſpunyarn thus: The rope is firſt doubled, and a laniard thruſt through the bight, and a wall-knot crowned on the ends; the ends are then brought up in the bight, and the four parts ſewed together. RUDDER-LANIARDS, the ends are thruſt through holes in the after-part of the rudder, on contrary ſides; and a double wall-knot, crowned, is made at the ends; the inner ends make faſt on each quarter of the boat within-ſide. SLINGS have a hook and thimble ſpliced in each end, with a long and ſhort leg, by having a thimble ſeiſed in the bight at one third the length.

BOOMKIN-SHROUDS, to ſupport the boomkins, have their after-ends hooked to eyebolts, one above the cheeks of the head, the other in the cutwater: at the fore part, or bight, is ſeiſed in a dead-eye, or thimble, which ſets up with a laniard to a dead-eye, or thimble, ſeiſed in a ſtrapt fixed round the outer end of the boomkin.

CATFALL reeves through the ſheaves at the outer end of the cat-head, and through the ſheaves of the cat-block alternately.

FLAGS. Flags and pendents are hoiſted by HALIARDS, (Pl. 6, fig. 69,) which reeve through ſheaves in the trucks at the maſt-heads or ſmall-blocks, ſeiſed where wanted. The two ends of the haliards ſplice together, and reach down to the tops, or down upon deck, and belay; one part of the haliards is bent to the upper part of the tabling, to the lower end, and to ſeveral places between; and, in proportion as one is hoiſted upon, the other is eaſed away, until the flag is hoiſted. The haliards are then belayed.

HALIARDS OF PENDENTS are bent to ſlings ſpliced round the ſtick; conſequently, to haul a flag or pendent down, the part that was hauled upon muſt be eaſed. Pl. 6, fig. 69.

The ENSIGN-HALIARDS reeve through a ſheave in the truck of the enſign-ſtaff, and belay to a cleat near the heel. Pl. 5, fig. 56.

The JACK-HALIARDS reeve through the ſheave in the truck of the jack-ſtaff, and belay to a cleat at the heel near the bowſprit.

SIGNAL-PENDENT HALIARDS are reeved through blocks or thimbles, ſeiſed to different parts of the ſhip, as the croſs-trees, &c.

SIGNAL-FLAGS are hoiſted at the mizen-peek, &c. Night-ſignals are made with lanterns, and are hoiſted by the ſame haliards as the flags.

The BROAD-PENDENT is hoiſted with the ſhorteſt ſide next the maſt.

FRAPPING, Pl. 1, fig. 36, is taking ſeveral turns with the end of a laſhing round the middle of it, or any number of ropes, and drawing the ſeveral parts tight together.

FRAPPING a ſhip is performed by paſſing a number of turns of a cable over the gunwale and round the hull, and heaving it tight, by thruſting a capſtan-bar through the middle of the turns, and twiſting them together. The turns are then ſecured by ſtopping the end of the bar. This is moſtly uſed when the upper works of a ſhip are not ſtrong enough to reſiſt the violent ſhocks of a heavy ſea.

GRIPES are ſhort ropes, ſpliced together in the middle, with a dead-eye ſeiſed in one bight. Pl. 3, fig. 46. The ſplice lies on the back of the dead-eye, and a hook and thimble are ſeiſed in the other bight, which hook to ring-bolts in the deck. The ſtraps are ropes, in length once and a quarter the width of the boat, ſpliced together in the middle, and the dead-eye ſeiſed in each bight; they are uſed to ſecure the boats upon the deck in this manner: The ſtraps are laid athwart the boat forward, in midſhips and aft, and ſet up with laniards through the holes in the dead-eyes of the ſtraps, and thoſe hooked to the ring-bolts in the deck.

GUN-TACKLES. Gun-tackling conſiſts of ropes, blocks, &c. and is to run the guns in and out, and ſecure them to the ſhip's ſides in bad weather. BREECHING is a rope to ſecure and prevent the gun from recoiling too much. It is formed with a cont-ſplice in the middle, which paſſes over the pomiglion, or caſcabel, of the gun, and through ring-bolts in each ſide of the carriage, and is clinched to large ring-bolts in the ſide of the ſhip, on each ſide of the port. PREVENTER-BREECHING is ſimilar to the breeching, and is uſed for additional ſecurity. The GUN-TACKLE is uſed to run the gun out of the port, and keep it in a ſituation for firing. Pl. 2, fig. 15. It has a ſingle block that hooks to the eye-bolts in the ſides of the carriage, and a ſingle or double block, for 32-pounders, that hooks to other ring-bolts by the ſides of the ports. RELIEVING or TRAIN TACKLES are to run guns in, and ſo retain them, by hooking the double block of the tackle to an eye-bolt in the train of the carriage, and its ſingle block to another eye-bolt in the deck; one of which is fixed oppoſite to every gun. QUOINS (beſides thoſe uſed to elevate and depreſs the gun) are tapered pieces of wood, like wedges, that are thruſt under the trucks of the carriages, and there kept, by being nailed to the deck; they are uſed in keeping the gun ſecurely houſed.

Guns are houſed or ſecured, by taking out the quoins and lowering the breech, ſo that the muzzle may take the upper part of the port. When thus placed, the two ſides of the breeching are frapped under the gun at the muzzle near the breaſt-part of the carriage. The muzzle of the gun is confined by ſeveral turns of a rope, or gaſket, made faſt to it, and the eye-bolts that are fixed in the ſhip's ſide, over the midſhips of the port.

The lower-deck guns are uſually kept houſed and ſecured when at ſea.

LASHING OF BOOMS, that is, the ſpare topmaſts, yards, &c. ſtowed on the boatſkids on each ſide. They are firſt ſecured in different places with ſeveral turns of laſhing on one ſide, independent of the other; then they are croſs-laſhed together in a ſtrong manner, and well frapped in the middle. In gales of wind, to prevent the booms ſhifting, ſeveral turns, with a hawſer, are taken round the booms, and through large triangular ring-bolts in the ſides; and ſometimes the turns are paſſed through an oppoſite port, and round the ſide: the turns are then hove tight, frapped, and belayed.

MARTINGAL-STAY, to ſupport the jib-boom, ſplices with an eye over the outer end of the jib-boom, then leads in through a ſcore, cut in the lower end of the martingal, (which is an aſh-bar, ſuſpended from the fore ſide of the bowſprit-cap, to which it faſtens,) has a double block turned or ſpliced into the inner end, that ſets up, by its fall, to a ſingle block hooked to an eye-bolt in the head.

PASSAREE. Any rope faſtened round the cat-head and fore-tack, to keep tight the leech of the ſail in light winds.

PENDENTS.—RUDDER-PENDENTS. Rudder-Pendents hook to the ring, in the end of the rudder-chains; the hook is mouſed; then ſtopped to hooks driven in the counter, over the rudder, at the quarters, and one between. A long tackle is hooked to a thimble, ſpliced in the ends of the pendents, and to an eye-bolt in the mizen-chains, and the fall leads in, through a port, upon the quarter-deck.

WINDING-TACKLE PENDENT. This pendent is made faſt round the maſt-head, with a round turn and two half-hitches. The ſtrap of the four-fold block is thruſt through the eye in the end of the pendent, and a toggle driven through the ſtrap. Pl. 3, fig. 26. It is guyed out to the lower yard, to a block ſecurely laſhed, that the block may hang over the ſide. The upper block is connected by its fall to a treble block below, and the leading part goes to the jear-capſtan through the deck, or is ſwayed on by men.

PREVENTER-SHROUDS, made of a ſpare hawſer, the bight of which is well parcelled: the end is paſſed round the maſt-head between that and the topmaſt, and ſeiſes as the other ſhrouds. At each end is turned-in a dead-eye, that ſets up with a laniard to a ſpare dead-eye in the channel.

ROPES. BELL-ROPE is hawſer-laid rope, nine or twelve feet in length, which bends round a thimble in the eye of the bell-ſtrap or crank. In the middle of the rope is a diamond-knot, and at the end a double wall-knot, crowned. BREAST-ROPE is faſtened along the laniards of the ſhrouds, for ſafety, when heaving the lead in the chains. ENTERING-ROPES hang from the upper part of the ſtantions at the gangways. The upper end is thruſt through an eye in the ſtantion, and is walled and crowned; and diamond-knots are made at about nine inches aſunder along the whole length. GUEST-ROPE is faſtened to an eye-bolt in the ſhip's ſide, and to the outer end of a boom, projecting from the ſhip's ſides, by guys, to keep the boats clear off the ſides. PASSING-ROPES, which lead round the ſhip through the eyes in the quarter, waiſt and forecaſtle ſtantions, have one end ſtopped through the eye of the gangway-ſtantions, with a wall-knot crowned, and are ſet up forward with a laniard through an eye-bolt in the knight-heads, and a thimble turned into the end: the ſame on the quarters. TILLER-ROPE is white rope, firſt ſtretched, then doubled and marked in the middle; and there nailed to the middle of the ſteering-wheel barrel: ſeven turns are next taken round the barrel on each ſide in large ſhips, and five in ſmaller; the ends are then paſſed through a groove on each ſide the middle of the deck, under the wheel. To prevent wet from going down, over each groove is a ſmall box fitted with a ſliding top, and a hole juſt ſufficient to admit the rope, which traverſes backwards and forwards, as the turns of the rope increaſe or decreaſe upon the wheel, by the helm being put on either ſide; ſometimes a leather collar is nailed on the top, and ſurrounds the rope for three or four inches high. Each end, paſſing through the holes in the decks, is reeved through vertical ſheaves, ſo fixed in a block, one on each ſide the midſhips cloſe up under the deck in the gun-room, as to direct each end into its reſpective ſide, where it reeves through a horizontal ſheave, fixed in a block at the end of the ſweep: thence it leads back into midſhips, along a groove made in the back of the ſweep, and is facilitated by rollers, fixed vertically in the back of the ſweep. Each end is then paſſed through an eye, on each ſide of the upper part of a hoop, that is bolted on the fore end of the tiller; the ends are then paſſed under the ſweep, through an eye on each ſide, in the middle of a hoop, driven on the tiller farther aft: laſtly, an iron thimble is turned into each end, with a throat and round ſeiſing, and ſets up with a laniard to an eye-bolt, driven in each ſide of the tiller farther aft. In large ſhips it ſets up with a gun-tackle purchaſe. When the tiller is worked upon deck, the tiller-rope is ſtretched, middled, and marked, and placed on the wheel as before: then reeved through a ſwivel-block, faſtened on each ſide the middle of the deck, under the wheel; and through another that is laſhed to an eye-bolt on each ſide of the ſhip: then brought into midſhips, to an eye, on each ſide of the hoop on the head of the tiller; and is there ſeiſed or ſpliced with a thimble.

SKIATIC-STAY, for hoiſting and lowering burdens out of or into ſhips, clinches or makes faſt with two half-hitches, and the ends ſtopt, round the heads of the main and fore maſts, with a tackle depending from it over the hatchway.

SNAKING THE STAYS, or ropes, on the quarters, Pl. 3, fig. 23, inſtead of netting, is ſeiſing proportioned ſized rope, at angles, from one ſtay or rope to the other, alternately, in a parallel direction along the whole length. Its uſe to ſtays is, that one part may remain perfect and independent of the other, ſhould it be ſhot away.

SPANNING OF BOOMS is performed by paſſing a rope alternately at angles from one ſide to the other round the outſide boom, ſpar, or topmaſt, ſo as to confine them from rolling about.

SPANNING OF RUNNERS is taking ſeveral turns round both runners abaft the maſt, and frapping the turns.

STOPPERS. SHROUD-STOPPERS, uſed to confine a ſhroud together, where injured, are of different lengths and ſizes; have a double wall-knot, crowned, and a laniard, made of ſennit, at each end. When uſed, one laniard is paſſed round the ſhroud and ſtopper, with ſeveral turns above the injured part, with the laniard the ſame below, and the end put under the laſt turn, and jambed. FORE-TACK and SHEET-STOPPERS, for ſecuring the tacks and ſheets till belayed, are of hawſer-laid rope, about ten feet long, have an eye ſpliced in one end, the other end opened out, and made ſelvagee-faſhion three-fourths the length. In large ſhips the fore-tacks lead in under the forecaſtle, and the ſtopper reeves through the eye round the topſail-ſheet bitts, and clap on the tack, with a round turn under the ſtanding part, and lead up with ſeveral turns in the cont-line, and the end held on. MAIN-TACK STOPPERS are of cable or hawſer-laid rope, about two fathoms long, have a double wall-knot, crowned, at one end, and a hook and thimble ſpliced in the other end, that hooks to a ring-bolt in the ſide, and claps on the tack, with ſeveral turns taken round the tack and ſtopper, with the laniard cloſe under the knot.

TACKLES. The Anchor-stock Tackle, Pl. 3, fig. 9. The double block is hooked to a ſelvagee faſtened round the ſtock of the anchor under the firſt hoop, and connected, by its fall, to a ſingle block, hooked to a ſelvagee faſtened round the laniard of the main-ſtay; the fall leads in upon the forecaſtle.

Burton-tackles, Pl. 3, fig. 49. Thoſe for the yards are ſometimes hooked to a ſelvagee, or ſtrap, round the outer-quarter of the yards, and ſwayed tight by their fall upon deck.

Downhauler-tackles to the topſail-yards are luff-tackles, hooked to ſelvagees round the yard; the fall leads upon deck.

Garnet-tackle is compoſed of a double block, and a ſingle block, ſtrapped, with a hook and thimble: it is hooked to the ſkiatic-ſtay in merchant-ſhips, and is uſed to hoiſt goods in or out.

Port-tackles are uſed to hoiſt and lower the port-lids. They have a ſpan with a ſingle block, croſs-ſeiſed in the bight; each end of the ſpan is then thruſt through holes in the ſide of the ſhip, and clinches, or ſplices, to a ring-bolt on each ſide of the port: obſerve, the port ſhould be cloſely ſhut, that the ſpan may be of ſufficient length. Through the ſingle block in the ſpan is reeved a runner; in one end of which is ſpliced an eye, that goes over a hook driven in the ſide of the beam. The other end of the runner ſplices, or turns-in to an eye, made by one end of the fall ſpliced round another ſingle block, which ſerves as a ſtrap to the ſame. The other end of the fall reeves through another ſingle block ſtrap, with an eye that goes over a hook driven into the ſame ſide of the beam, and the leading part of the fall belays round an iron clamp, nailed on the ſide of the beam. Port-tackles on the quarters have a ſpan and ſingle block turned in the bight, as the lower ports, and the ends ſpliced in the ring-bolts in the ports without-ſide. The fall is ſpliced round a timber-head, or eye-bolt, in the ſide, and the leading-part reeves through the block in the ſpan, and is hauled upon by men on the deck.

Relieving-tackles have one end made faſt to a rope-ſtrap, with a thimble on each ſide of the tiller; and the other end to an eye-bolt in the ſide.

Rolling-tackles are hooked to a ſelvagee, or ſtrap, round the lower cap; alſo to a ſtrap or ſelvagee round the inner-quarter of the yard; they are bowſed tight by the fall on each ſide in the top, and belay round the maſt.

TOPPING-LIFT, to ſupport the topmaſt-ſtuddingſail boom in a gale of wind, is a pendent clinched round the middle of the boom, then led up through a block laſhed to the topmaſt-cap; the end is then turned up with a throat and round ſeiſing, and a tackle, hooked therein, ſets up in the top by its fall. This ſhould be done before the ſail is ſet.

TRAVELLING-BACKSTAYS, uſed in bad weather to ſupport the fore and main topmaſts, ſplice into a ſpan, round the topmaſt, under the parral, and ſet up in the chains, with a luff-tackle, to an eye-bolt. They travel up and down the topmaſt occaſionally, with tricing-lines, that ſplice into a thimble, on each ſide of the ſpan, and through blocks ſeiſed to the topmaſt treſtle-trees, and lead into the top.

* * *

RIGGING.

PART V.

RIGGING BRIGS AND SMALL VESSELS.

RIGGING VESSELS WITH TWO MASTS.

A SNOW (See Pl. 10.) is the largeſt two-maſted veſſel, and is extremely convenient for navigation.

The ſails and rigging on the main and fore maſt are ſimilar to thoſe on the ſame maſts in a ſhip, the braces of the ſails on the main-maſt leading forward: beſides which, there is a ſmall maſt, cloſe behind the main-maſt, that carries a tryſail, reſembling the mizen of a ſhip. This maſt, called the tryſail-maſt, is fixed in a ſtep of wood upon deck, and the head fixed by an iron clamp to the aft-ſide of a chock in the treſtle-trees.

Veſſels in the navy, that reſemble ſnows, have a rope-horſe, that ſets up abaft the main-maſt with dead-eyes and a laniard, to which the tryſail is bent, by hanks, and ſeiſings, ſimilar to the tryſail of a ſnow.

An HERMAPHRODITE is a veſſel ſo conſtructed as to be, occaſionally, a ſnow, and ſometimes a brig. It has therefore two main-ſails; a boom main-ſail when a brig, and a ſquare main-ſail when a ſnow; and a main-topſail larger than the fore-topſail.

Sometimes the boom main-ſail is bent to the main-maſt, as a brig; or on a tryſail-maſt, as a ſnow.

RIGGING A BRIG.

The rigging of a brig is little different from the fore and main maſts of a ſhip, the braces of the ſails on the main-maſt leading-forward. The after-main ſhroud muſt be ſerved from the maſt-head to the dead-eye, to prevent its being chafed by the main-boom and gaff. The after-backſtay is fitted with a tackle, that it may be ſlackened when the main-ſail jibes, or is bowſed forward by the boom-pendent and tackle. They carry no main-yard, but a croſs-jack yard.

RIGGING A BILANDER. (Pl. 10.)

A Bilander is a merchant-ſhip with two maſts, but different from others in the ſhape of the main-ſail, which reſembles a ſettee-ſail. The head is bent to a yard, ſimilar to the mizen-yard of a ſhip, and hangs to the main-maſt, as a ſhip's does to the mizen-maſt.

This method has proved inconvenient, and is now ſeldom uſed but by the Dutch.

RIGGING A KETCH. (Pl. 10.)

A Ketch is a veſſel with two maſts; the main-maſt has a top-maſt, and carries a main-ſail, topſail, and topgallant-ſail, ſimilar to a ſhip's; and ſometimes, abaft the main-maſt, is a large gaff-ſail, called a wing-ſail. The mizen-maſt ſometimes has a topmaſt, and carries a topſail; and, abaft the maſt, a gaff-ſail, like a ſhip's mizen. The bowſprit is long, and on it are ſet two or three jibs.

RIGGING A SCHOONER. (Pl. 11.)

A Schooner is a veſſel with two maſts and a bowſprit. The maſts rake aft, but the bowſprit lies nearly horizontal. On the bowſprit are ſet two or three jibs; on the fore-maſt a ſquare fore-ſail; and, abaft the fore-maſt, a gaff or boom ſail; and above thoſe a topſail. Abaft the main-maſt is ſet a boom-ſail, and above it is a topſail. The main-ſtay leads through a block, at the head of the fore-maſt, and ſets up upon deck by a tackle. By theſe means, the ſail abaft the fore-maſt is not obſtructed when the veſſel goes about, as the peek paſſes under the ſtay.

Schooners ſail very near the wind, and require few hands to work them. Their rigging is light, ſimilar to a ketch's, and the topmaſts fix in iron rings, abaft the lower maſt-heads.

RIGGING A LUGGER. (Pl. 11.)

A Lugger is a veſſel with two maſts, and a bowſprit nearly horizontal.

On the bowſprit are ſet two or three jibs; and the lug-ſails hang obliquely to the maſts, their yards being ſlung at one third of their length, one on each lower-maſt and topmaſt: the topmaſt fixes abaft the maſt-heads, as thoſe of ſchooners.

Luggers ſail well cloſe-hauled, and very near the wind. The rigging is very light and ſimple. The maſts are ſupported by ſhrouds and ſtays; the yards have haliards, lifts, and braces. To the lee-clue of the ſail is a ſheet, and to the windward-clue a tack, which is occaſionally ſhifted as the veſſel goes about. When this is often repeated, they loſe ground in ſtays.

Some luggers have a ſmall maſt and a ring-ſail ſet to it over the ſtern, and the foot ſpread by a ſmall boom.

In blowing weather they have ſmall lug-ſails, the tack of which hauls down by the maſt, as their large ſails would endanger them, ſhould they chance to get up in the wind.

RIGGING CUTTERS, OR VESSELS WITH ONE MAST. (Pl. 11.)

RIGGING THE MAST.

Girtline-Blocks are laſhed at the maſt-head, like thoſe of ſhips.

Pendents of Tackles are wormed, parcelled, and ſerved, their whole length; then doubled, and the bight ſeiſed to the ſize of the maſt-head: the ends are then ſpliced together, and a ſingle block ſeiſed in the lower bight; the ſplice to lay on the arſe of the block.

The ends of all ſplices are tapered, marled down, and ſerved over with ſpunyarn.

Runners of Tackles are fitted with a hook and thimble, ſpliced at one end, and ſerved over; and reeve through the block in the pendent, and through the ſtrap of the long-tackle block, and ſplices.

Falls of Tackles reeve through the upper ſheave of the long-tackle block, and through a ſingle block, with a long ſtrap, that has a hook and thimble ſpliced in it, and hooks to an eye-bolt in the ſide. The fall is then taken upwards, reeved through the lower ſheave of the long-tackle block, and down again through the becket in the arſe of the ſingle block, and makes faſt with a bend, and the end ſeiſed up.

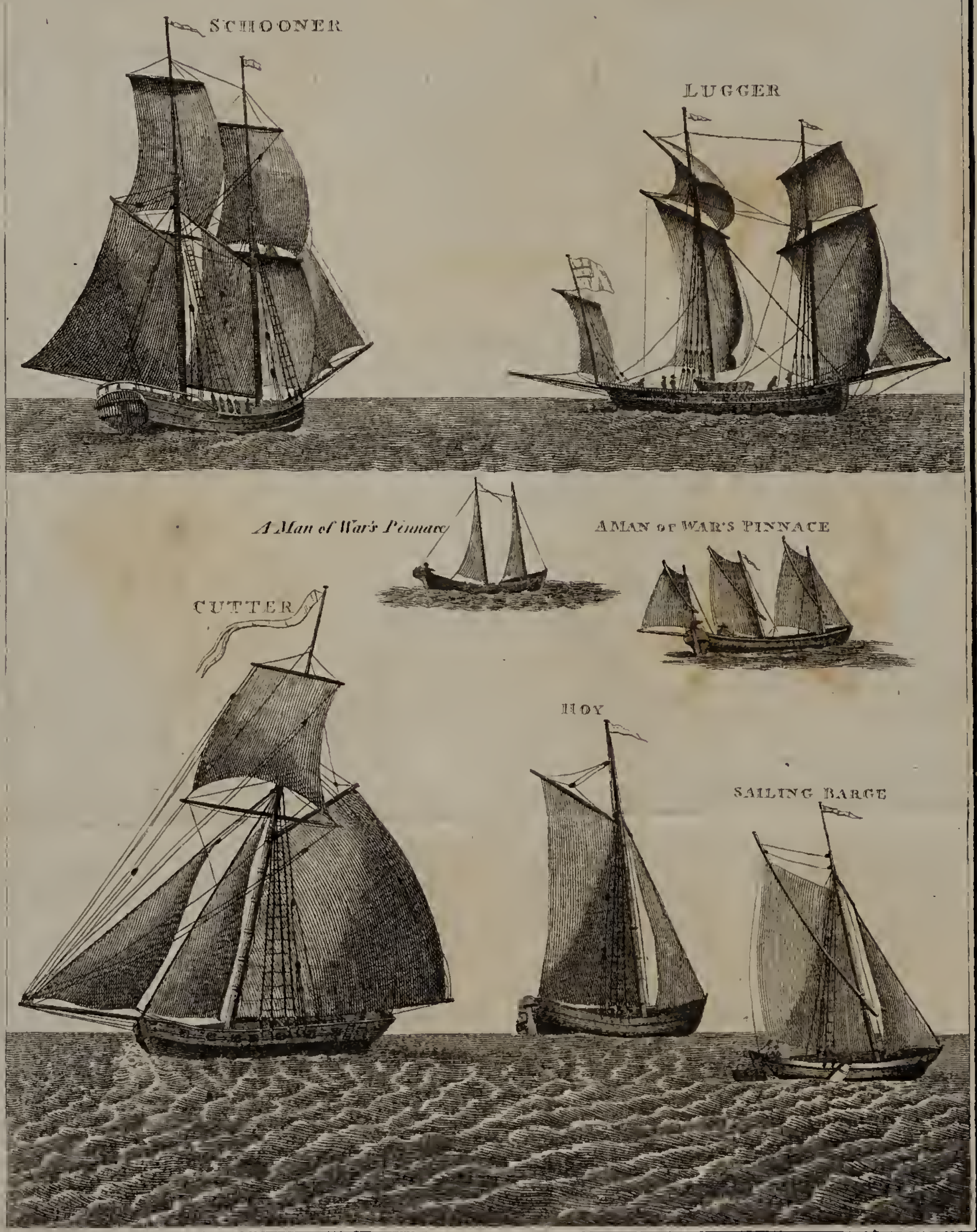
Shrouds, four or five pairs, are fitted and got over the maſt-head, ſimilar to thoſe in ſhips. The after-ſhroud on each ſide is wormed, parcelled, and ſerved with ſpunyarn, down to the dead-eye.

The **Stay** is fitted and got over the maſt-head, ſimilar to that in ſhips; only wormed its whole length.

Preventer Stay, ſimilar to ſhips.

The

Plate II.



London Published May 1st 1806 by P. Mason at Steels Navigation Warehouse Little Tower Hill.

The STAY ſets up with a dead-eye, turned into the lower end of the ſtay with a running or Flemiſh eye, and with a laniard, reeved through the holes in the dead-eye, and through holes bored through the head of the ſtem.

PREVENTER-STAY ſets up with a laniard, reeved through the holes in the dead-eye in the lower end of the ſtay, and another dead-eye in an iron-bound ſtrap, bolted on the fore-part of the ſtem.

RIGGING THE BOWSPRIT.

The SHROUDS are fitted with a hook and thimble, ſpliced at one end, that hook to an eye on each ſide of a ſquare hoop driven on the end of the bowſprit. The inner end has an iron thimble turned in, and ſets up by a laniard to an eye-bolt on each ſide of the bow, and the end ſecured with hitches. Sloops have HORSES, ſimilar to jib-boom horſes of ſhips, and ſometimes ratlings.

MAIN-JIB TACK is clinched through the ſwivel-eye in the traveller on the bowſprit, then reeves through a ſheave-hole in the end of the bowſprit, and through an iron-bound block, hooked and mouſed to an eye-bolt in the ſide of the ſtem near the water, and then brought to the windlaſs over the bow, and hove out: then ſtopt and belayed round a timber-head.

HALIARDS reeve through the block laſhed to the head of the ſail, and through the block on each ſide the maſt-head. One end has a treble block ſpliced or turned in, and connects by its fall to a double block, that hooks to an eye-bolt in the deck on one ſide, and the other end belays to an eye-bolt oppoſite.

SHEETS are either ſingle or with blocks and falls. Sheets, ſingle, are bent to the clue of the ſail, and lead over the bow to the windlaſs; the double ſheets have two double blocks laſhed to the clue of the ſail, and connect by their falls to a ſingle block, hooked to an eye-bolt near the cat-head, on each ſide. The falls lead in upon deck through a hole in a timber-head, or a leading block laſhed on each ſide.

DOWNHAULER makes faſt to the head of the ſail, and leads upon deck.

INHAULER makes faſt to the traveller, and leads in upon deck.

HEEL-ROPE reeves through a leading block, hooked to an eye-bolt in the bow, then through a ſheave-hole in the heel of the bowſprit, and the ſtanding part makes faſt to a timber head or eye-bolt, and the leading-part is connected to the windlaſs.

RIGGING THE FLYING-JIB.

The FLYING-JIB, ſimilar to the main-jib.

RIGGING THE FORE-SAIL.

The FORE-SAIL bends with hanks to the ſtay.

HALIARDS reeve through a block, laſhed underneath the collar of the ſtay at the maſt-head, and a block laſhed to the head of the ſail: the ſtanding part makes faſt round the maſt-head, and the leading part comes down upon deck.

DOWNHAULER reeves through the hanks, and bends at the head of the ſail, then reeves through a leading block, made faſt to the ſtay at the foot of the ſail, and belays to a cleat on the gunwale.

TACK-TACKLE. The block is hooked to the tack of the ſail, and connected by its fall to a block, made faſt under the ſtay to an eye-bolt in the bow, and belays to the croſs-piece of the windlaſs.

BOWLINES. A hook is ſpliced in one end, that hooks to the clue; then reeves through a block, laſhed to the ſhrouds on each ſide, and through a cringle in the leech of the ſail, and belays round a pin in the ſhroud-rack.

SHEETS reeve through a block made faſt to the horſe with a thimble, or, in ſome ſloops, a dead-eye iron-bound, and through a block at the clue, and ſo on, alternately, between the ſtrap of the block and the ſeiſing or dead-eye; then through the thimble at the clue, till the whole ſheet is expended; then frapped together and hitched.

RIGGING THE BOOM.

TOPPING-LIFT is taken upon the ſtarboard-ſide, and reeved through the upper block, hooked to an eye-bolt in the maſt-head; then led down and reeved through the block at the boom-end. The ſtanding part clinches round the maſt-head, or hooks to the ſame eye-bolt; the leading part comes down, and has a double block ſpliced or turned-in, that connects by its fall to a ſingle block, and hooks to an eye-bolt in the after part of the channel, and belays to a pin in the ſhroud-rack. Sometimes it has the addition of a runner, and ſometimes is rigged as the driver-boom in ſhips.

SHEETS reeve through a double-block, ſtrapped round the boom juſt within the taffarel, and through another double block, ſtrapped round the horſe; and belay round a large cleat on the taffarel. Very large cutters have a treble block at the horſe.

TACK-TACKLE. The double block is faſtened to the tack of the ſail, and connects with its fall to a ſingle block hooked to an eye-bolt in the deck.

REEF-PENDENTS, or EAR-RINGS, four in number, reeve through four holes in the outer end of the boom, and have a thimble ſpliced in one end, wormed and ſerved with ſpunyarn nearly their whole length. The other end reeves through its reſpective reef-cringle on the after-leech; and, when a reef is to be taken in, it is cat's-pawed on to the hook of a luff-tackle, to haul down the leech of the ſail; and afterwards ſraps round the ſail and boom, till expended, and makes faſt with a hitch. It is common to put old hammocks under the pendents between that and the ſail.

GUY-PENDENTS have a hook and thimble, that hook in a thimble of a ſtrap on the boom, juſt without the main-ſheet block. In the inner end of the pendent is a thimble, or long-eye ſpliced, to which is hooked a luff-tackle. Its ſingle block is hooked near the windlaſs to a timber-head or eye-bolt, and the fall leads in board.

MAIN SHEET. One block ſtraps round the boom near the taffarel, and is confined by a comb-cleat. The other block is ſtrapped with a thimble, and traverſes upon an iron horſe, ſecured to the inſide of the taffarel, and they are connected by the ſheet or fall which belays round a large cleat on the taffarel, or the pin of the block in ſmall veſſels.

TIE, or HALIARD, reeves through a block on the ſpan, that clinches or ſplices round the middle of the gaff. The ſtanding part of the tie clinches round the maſt-head, or hooks to an eye-bolt in the maſt-head: the other end reeves through a ſecond iron-bound block, hooked to an eye-bolt in the maſt-head, and at the lower end is the double-haliard block, that does not ſplice as other haliards, but reeves through the ſtrap, and makes faſt with a hitch; and the remainder is expended in turns round the block and ſtrap. The haliard-block connects by its fall to a ſingle or double block, hooked to an eye-bolt in the deck, cloſe behind the maſt.

INNER-TIE is ſimilar to the outer-tie, and hooks to an eye-bolt in the jaws of the gaff; then reeves through the lower iron-bound block, that hooks to an eye-bolt in the aft-ſide of the maſt-head, below the rigging. It has a double block bent to the lower end, and ſets up by the haliards; the lower block hooking to an eye-bolt on the oppoſite ſide to the other tie.

PEEK-DOWNHAULER reeves through a ſmall block, ſtrapped round the thimble, in the eye-bolt at the outer end of the gaff, and belays round a cleat under the boom.

THROAT-DOWNHAULER reeves through a block at the nock of the ſail, and leads down the maſt.

RIGGING THE TOPMAST OR TOPGALLANT-MAST.

SHROUDS are fitted and go over the maſt-head as ſhip's topgallant-maſt ſhrouds, and thimbles are ſeiſed in them, in the upper part, for the lifts, and reeve through the holes in the ends of the croſs-trees; then come down upon deck, and ſet up with a thimble and laniard round the lower dead-eyes.

STAY ſplices with an eye to the ſize of the maſt-head; the lower end reeves through the middle-ſheave of a treble block, laſhed round the bowſprit-end underneath, and leads to an eye-bolt near the ſtem, to which it ſets up with a laniard, through a thimble turned into its end.

STANDING-BACKSTAYS, if one pair, go over the maſt-head with a cont-ſplice; if two pair, with eyes ſeiſed, and in the lower end a thimble, and ſet up with a gun-tackle purchaſe, hooked to a thimble of a ſtrap round the lower dead-eyes, and ſometimes with a laniard and thimbles.

RIGGING THE CROSS-JACK YARD.

TOP-ROPE, ſimilar to ſhips.

QUARTER-BLOCK is ſtrapped with a double ſtrap, having a long and ſhort leg; and is fixed in the middle of the yard between the cleats: the long leg comes up the aft-ſide of the yard, and meets the bight of the ſhort leg on the fore-ſide, and there laſhes through the bights.

STRAPS, with a thimble ſeiſed in the bight, are ſpliced or laſhed through eyes round the middle of the yard: the thimble in one ſtrap is fixed on the aft-ſide of the yard, the other thimble on the upper-ſide of the yard.

CLUE-LINE BLOCKS are laſhed with two eyes round the yard, as ſhips. Some ſloops and light-rigged veſſels have no clue-line blocks: they lower the yards.

HORSES go over the yard-arm with an eye, as in ſhips.

BRACE-PENDENTS, as ſhips AFTER-BRACE PENDENTS, go over the yard-arm with an eye.

SHEET-BLOCK ſtraps in the lift with a ſplice, and a bight is ſeiſed in the lift to the ſize of the yard-arm, and goes over it next the braces. Merchant-veſſels ſometimes have their topſail-ſheets fitted in the ſame manner.

FORE-BRACES reeve through the pendent-block. The ſtanding part goes out, and clinches round the outer end of the bowſprit; the leading part reeves through a ſheave, on one ſide of the treble block, out at the end of the bowſprit, and comes in upon deck.

AFTER-BRACES lead in upon the quarter, through a ſnatch-block, or a ſheave-hole in the ſide; and belay to a cleat or timber-head.

LIFTS reeve through a ſpan-block round the cap or maſt-head, and lead down upon deck.

TACKLE, or HALIARD, for ſwaying up the yard, is either treble or double, according to the ſize of the veſſel. The upper block hooks to an eye-bolt in the fore-ſide of the maſt-head, or to a ſtrap round the maſt. The lower blocks hook to the thimble in the ſtrap, on the middle of the yard; the fall reeves through a ſheave-hole in the topſail-ſheet bitts, and leads aft.

HORSE laſhes round the maſt-head, with an eye ſpliced in the upper end, and ſets up with dead-eyes and a laniard below.

RIGGING

RIGGING THE TOPSAIL-YARD.

Tie reeves from aft, through the ſheave-hole in the maſt-head, comes down, and clinches round the ſlings of the yard: the other end has a double block ſpliced, that connects by its fall to a ſingle block hooked in the channel; the fall leads through a leading-block on the gunwale, and belays to a cleat or timber-head.

Clue-Line Blocks, Horses, Brace-Pendents, and **Lifts,** go on the yard as ſhips.

Lifts reeve through a thimble in the topmaſt-ſhrouds, and come down upon deck.

Braces reeve through the pendent-block, and the ſtanding part goes out, and clinches round the bowſprit-end; the leading part reeves through one of the ſheave-holes of a double block at the bowſprit-end, leads in upon deck, and belays where moſt convenient.

Bowlines reeve through a thimble in a ſtrap over the bowſprit-end; and go on the bridle at the ſail, as in ſhips: the leading part comes in upon deck.

RIGGING THE MAIN-SAIL.

The **Main-Sail** bends at the head to the gaff with ear-rings and lacing, as the ſhip's mizen; and is ſeiſed to the hoops round the maſt, through the holes in the foremoſt leech.

Throat-Downhauler. The double block hooks to the eye under the throat of the gaff, that connects by its fall to a ſingle block, hooked to a thimble, ſeiſed in the bight of a ſtrap round the maſt under the boom-ſaddle.

Tricing-Line reeves through a ſmall block made faſt to the above eye bolt in the gaff: one end ſplices to the tack of the ſail; the other leads down upon deck, and belays to a cleat near the maſt.

Sheet-Rope ſplices into the clue of the ſail, and reeves through the ſheave-hole in the boom; and a thimble is turned into the inner end, to which hooks the ſheet or luff tackle, and the inner block to a ſtrap round the boom near the jaws. When the ſail is hove out, it is laſhed with an ear-ring through the clue, and an eye-bolt in the boom-end.

RIGGING THE TRYSAIL OR STORM MAIN-SAIL.

This ſail bends as the main-ſail, and may be rigged with the ſame materials, if no other be allowed; but moſtly with ſheets, and no boom, but like a ſhip's mizen.

RIGGING THE SQUARE-SAIL OR CROSS-JACK.

This ſail bends ſimilar to a ſhip's main or fore-courſe.

Bowlines reeve through a ſheave in the double block on the bowſprit-end, and on the bridle at the ſail, the ſame as a ſhip's. The leading part comes in upon deck, and belays round the bitts.

RIGGING THE TOPSAIL.

The Topsail bends as the ſhip's topſail, and rigs ſimilarly.

Topgallant-Sail ſets flying like a ſhip's royal.

RIGGING THE GAFF-TOPSAIL.

The Gaff-Topsail laces to a ſmall gaff at the head.

Haliards reeve through a ſheave-hole at the topgallant-maſt head, and bend to the inner-part of the gaff: the leading part comes down upon deck.

Topping-Lift reeves through a ſheave-hole or ſmall block, ſeiſed to the topgallant-maſt head, then through a thimble or ſmall block ſeiſed at the outer end of the gaff: the ſtanding part makes faſt round the topgallant-maſt head, above the ſheave-holes, and the leading part comes down upon deck.

Tack makes faſt the tack of the ſail, a little above the rigging.

Sheet reeves through a thimble ſeiſed at the peek of the mainſail, and bends to the clue of the ſail, and leads down upon deck.

RIGGING THE LOWER STUDDINGSAILS.

Theſe ſails bend as a ſhip's, and are ſet flying like a ſhip's fore-ſtuddingſail.

RIGGING THE TOPMAST-STUDDINGSAILS.

The Topmast-Studdingsails bend nearly as a ſhip's.

Haliards reeve through ſingle-blocks, made faſt round the maſt-head, above the rigging: one end reeves through the jewel-block, and bends to the yard: the other end leads down upon deck.

Sheets and Tacks, as a ſhip's.

RIGGING THE RINGTAIL-SAIL.

The Ringtail-Sail is ſimilar to a topmaſt-ſtuddingſail, and bends to a ſmall yard on the head, and hoiſted by the peek-downhauler, which ſerves for haliards. The foot is expanded on a ſpar, or ſmall boom, laſhed to the outer end of the main-boom.

RIGGING THE MIZEN.

The Mizen is ſet on a ſmall maſt over the ſtern. If a ſquareſail, it bends to a yard, and is hoiſted by haliards reeved through the maſt-head, and is ſpread by ſheets at the foot. If a ſpritſail, it bends to the maſts with grommets, and is peeked with a ſprit; and the foot hauls aft by the ſheet to a ſmall boom.

RIGGING

RIGGING THE WATER-SAIL.

The **Water-Sail** is ſimilar to a lower ſtuddingſail, and bends on the head to a ſmall yard.

Haliard reeves through a ſmall block under the outer end of the main-boom, comes in and makes faſt to the middle of the yard, and the leading part round a cleat on the taffarel.

Sheets make faſt to the clues of the ſail, and lead in over the quarters.

RIGGING THE SAVE-ALL-TOPSAIL.

The **Clues** laſh near to the lift-block of the croſs-jack yard.

Haliards bend to the ear-rings of the ſail, and reeve to a block on each quarter of the topſail-yard, and lead down upon deck.

RIGGING OF SLOOPS AND SMACKS.

Sloops and **Smacks** are veſſels with one maſt, and rig as cutters, but much lighter.

RIGGING OF HOYS AND LIGHTERS.

Hoys and **Lighters** are veſſels with one maſt, and ſometimes a bowſprit; abaft the maſt is a gaff-mainſail, before it a fore-ſail, and a jib upon the bowſprit. The little rigging they have is ſimilar to ſloops.

RIGGING OF SAILING-BARGES.

Sailing-Barges are veſſels with one maſt, and ſometimes a bowſprit. Thoſe that have boom-ſails are rigged ſimilar to ſloops; but, having few hands on board, the boom and gaff are more eaſily hoiſted or topped, the power being increaſed by the addition of blocks.

The **Boom-Topping Lift** is a long pendent, and goes over the outer end of the boom, with an eye ſpliced in one end, and in the other end is ſpliced a double or ſingle block, that connects by its fall to a ſingle block, hooked in an eye-bolt at the upper-part of the maſt-head; and the fall leads down to the ſhrouds at the ſide, and ſometimes rigged ſimilar to a ſhip's driver-boom or cutter's main-boom.

TIE or HALIARDS of the gaff are rigged to the fancy and caſe of the maſter, &c. The ſtanding part is faſtened to the arſe of a ſtanding block, hooked to an eye-bolt in the maſt-head, next below the topping-lift; then reeves through a ſingle block on the ſpan at the peek; then carried up; and reeves through the block near where the ſtanding part is made faſt; then through another block, on a ſpan near the middle of the gaff, and leads up again, and reeves through another ſingle block, hooked to an eye-bolt in the maſt-head, below the other block or ſtanding part, and leads down upon deck; ſometimes the ſtanding part goes over the maſt-head, with an eye ſpliced in the end; then reeves through a block at the peek-end of the gaff, and then through a ſingle block at the maſt-head, below the ſtanding part; and then through a ſingle block on a ſpan near the peek; laſtly, through another block at the maſt head, below the former block; and then leads down upon deck. The tie has moſtly haliards in the lower end, like the cutters.

SAILING-LIGHTERS or BARGES, with a ſprit-mainſail, rig with a ſprit-yard at the head of the ſail, hanging diagonally to the maſt.

The SHROUDS and RUNNER-PENDENTS go over the maſt-head, with eyes ſpliced at the ends, or with bights ſeiſed cloſe to the maſt, and reſt upon a pudding or grommet, drove down to the ſtops on the maſt-head.

The STAY goes over all with a running-eye, and ſets up with a large three or four fold tackle: the upper block hooks in a large thimble, turned into the lower end of the ſtay, or is itſelf turned into the lower end of the ſtay, and the lower block is ſecured to the ſtem, by hooking into a large ſtrap, for lowering the maſt.

The STAY or STANDING-MAST is ſet up with a dead-eye or block, in the lower end, and holes through the head of the ſtem.

SPRIT-YARD PENDENT. One end ſplices to a collar or grommet, that is ſpliced round the middle of the ſprit-yard; the other end reeves through a block at the maſt-head, comes down, and then a thimble is ſpliced in, and ſerved over the ſplice: in this thimble hooks a double block, (in large barges,) that connects by its fall a double block, hooked to an eye-bolt in the deck: a luff-tackle is uſed in ſmall barges.

STANDING-LIFT, to top the ſprit-yard up, goes with an eye ſpliced in the end over the lower end of the yard; then leads through a block at the maſt-head, has a thimble ſpliced in the end, to which hooks a double or luff-tackle block, and the lower block hooks to an eye-bolt in the deck or ſide.

VANGS. Some large barges have vangs like a ſhip's mizen, and a down-hauler at the peek-end of the ſprit-yard.

HALIARDS or TRICING-LINE make faſt to the grommet at the nock of the ſail, and reeve through a block at the maſt-head, and lead down upon deck.

The **SPRITSAIL** is bent to hoops, that ſlide on the maſts above the ſnotter, and to hanks below it, that ſlide on a horſe abaft the maſt: the tack is ſecured with ſeveral turns round a cleat on the maſt, or eye-bolt in the deck, and through the thimble in the tack of the ſail. The turns are frapped together, and the end hitched: the nock is ſecured in a ſimilar manner to a grommet; encircling the maſt: the peek is extended to the upper extremity of the ſprit-yard, by its going through the peek.

SHEET. One end bends to the clue of the ſail, the other reeves through a block that traverſes on an iron or wooden horſe, (fixed athwart the veſſel near the ſtern,) and again reeves through a block, hooked to a thimble in the after-leech of the ſail, four feet above the clue; then leads aft, and belays round the pin of the block on the horſe.

BRAILS, are made faſt to cringles on the after-leech of the ſail, then lead upon each ſide of the ſail, and reeve through ſmall blocks, ſeiſed into the head-rope, and then through blocks laſhed to the upper-part of the ſhrouds on each ſide; and lead down through trucks ſeiſed to the ſhrouds below the middle, and belay round pins in the ſhroud-rack.

BRAILS go with two ſhort legs; one ſpliced in the head-rope near the nock, the other about four feet up the head: the leading part comes down one ſide of the ſail, and reeves through a cringle, on the after-leech, five or ſix feet above the clue, and comes upon the other ſide, and reeves through a block, ſeiſed to the nock of the ſail, and leads down by the maſt.

THROAT-DOWNHAULER ſplices to the neck of the ſail, and leads down by the maſt.

HORSE is a rope that goes with an eye over the maſt-head, and ſets up with a laniard through dead-eyes; one of which is ſpliced in the lower end of the horſe, and the other hooks to an eye-bolt near the heel of the maſt.

SNOTTER is made of two or more turns of a rope, ſpliced at the ends, and marled cloſely together, to the circumference of the maſt and lower end of the ſprit-yard; then ſerved with ſpunyarn, and covered with leather, and a ſeiſing clapped on, between the maſt and the lower end of the ſprit-yard, which reſts in the grommet, by the ſtop or ſhoulders made at the end, when the ſail is hoiſted.

LARGE BARGES have a fore-ſail, jib, croſs-jack yard, and top-ſail, ſimilar to ſloops.

SLOOPS, SMACKS, BARGES, and **LIGHTERS,** that go through bridges, have the maſt confined in a trunk or wooden cap, above the deck, and faſtened in by an iron ſtrap on the aft-ſide:- ſome have a ſtrong iron hinge at the heel of the maſt, or a bolt through the heel; ſo that it can be lowered at pleaſure, by the ſtay-tackle eaſing away the fall by degrees. To raiſe the maſt, the fall is brought to the windlaſs, and hove upon, until the maſt is up in its place: the fall is then ſtopped to the windlaſs-bitts.

RIGGING OF SHIPS LONG-BOATS, OR LAUNCHES.

They are often rigged like ſmall sloops or ſchooners.

RIGGING OF SHIPS' PINNACES AND ROWING-BARGES.

Theſe ſometimes have lateen-ſails, and rig with ſliding-gunter topmaſts like houarios, or bend to yards, and hoiſt with

HALIARDS, that reeve through a ſheave-hole in the maſt-head: one bends to the ſlings of the yard, on the fore-part of the maſt, and the other end belays abaft the maſt.

SHEETS bend to the clue of the ſail, and lead aft.

SPRITSAILS, ſimilar to thoſe in ſailing-barges, are ſometimes uſed.

RIGGING OF SHIP's CUTTERS, OR YAWLS.

Theſe ſometimes have lug-ſails, and rig with a

HALIARD, like the pinnace.

SHEET and TACK, like the lugger.

PROPORTIONS

FOR THE

LENGTHS

OF THE

STANDING AND RUNNING RIGGING

OF ALL

SHIPS,

CALCULATED FROM THE LENGTH OF THEIR MASTS AND YARDS.

⁂ *The Proportions and Dimensions of all the Masts, Yards, Booms, and Gaffs, are fully described and given at large, in Steel's* "Art of making Masts, Yards, &c." *Those of the Sails will be found in like manner, in Steel's* "Art of Sailmaking."

EXPLANATION OF THE PROPORTIONS.

Rule. — Take the number of feet contained in the length of the bowſprit, &c. then find the proportional part for any of its rigging, obſerving to reckon fathoms for feet. Thus, ſuppoſe it were required to know the length of a rope neceſſary for the woolding of a bowſprit of a twenty-gun ſhip; the following tables direct that it ſhould be twice the length of its bowſprit: therefore, ſuppoſe the length of the bowſprit to be 60 *feet,* twice that length is 120, that is 120 *fathoms.*

N. B. Wherever there is a fractional proportion, as three-eighths, &c. given, it only requires the length of the bowſprit, &c. to be multiplied by the leſſer number, called the numerator, and that product divided by the larger number, or denominator; thus, three-eighths of the bowſprit is 22 ½ fathoms.

60 feet
Multiplied by 3 numerator
Divided by the denominator 8)180
Fathoms 22 4/8 or ½

RIGGING TO THE BOWSPRIT.

Woolding	Twice and a half the length of the bowsprit in large, and twice in small, ships.
Gammoning	Twice and a quarter the length of the bowsprit if two, and one and a half if one, gammoning.
Shrouds	Half the length of the bowsprit if two pair, and a quarter if one pair.
Collars	One-third the length of the shrouds.
Seisings	Once and a half the length of the collars.
Lashings	One fathom longer than the collars.
Laniards	Twice the length of the collars.
Bobstay	Half the length of the bowsprit if three pair, and one-third if two pair.
Collars	One quarter of the length of the bobstays.
Seisings	The length of the bobstays.
Lashings	One fathom longer than the collars.
Laniards	Twice the length of the collars.
Horses	Two-sevenths of the length of the bowsprit.
Straps	One-fifth of the length of the horses.
Laniards	Three-eighths of the length of the horses.

RIGGING TO THE SPRITSAIL-YARD.

Horses	One-fifth of the length of the yard.
Stirrups	Half the length of the horſes.
Braces	Once and a quarter the length of the spritsail-yard.
Pendents	One-twelfth of the length of the braces.
Strapping	One-seventh of the length of the braces.

Lifts	Seven-eighths of the length of the spritsail-yard.
Beckets	Four fathoms in ships of the line, and two in other ships.
Strapping	The same length as the beckets.
Seising	Twice the length of the strapping.
Standing	One-sixth of the length of the lifts.
Straps	Half the length of the standing-lifts.
Laniards	Three-fourths of the length of the standing-lifts.
Haliards	Three-fifths of the length of the spritsail-yard.
Strapping	Three fathoms in ships of the line, and two in other ships.
Seising and Lashing	One-fifth of the length of the haliard.
Slings	One-tenth of the length of the spritsail-yard.
Seising and Racking	Twice the length of the slings.
Clue-Lines	Two-thirds of the length of the spritsail-yard.
Strapping	One-eighth of the length of the clue-lines.
Bunt-Lines	Half the length of the spritsail-yard.
Strapping	One fathom.
Ear-Rings	One-fourth of the length of the spritsail-yard.
Sheets	Five-eighths of the length of the spritsail-yard.

RIGGING TO THE JIB-BOOM.

Horses	Two-fifths of the length of the jib-boom.
Seisings	Half the length of the horses.
Guy-Pendents and **Strapping**	Five-eighths of the length of the jib-boom.
Falls and Strapping	Two fathoms longer than the pendents.
Lashers	Half the length of the pendents.
Outhauler	One-fourth of the length of the jib-boom.
Tackle-Fall	Five-eighths of the length of the jib-boom.
Strapping	One fathom.
Stay	Five-eighths of the length of the jib-boom.
Strapping	One fathom.
Tackle-Fall and Strapping	Half the length of the jib-boom.
Haliard and **Strapping**	Once and a half the length of the jib-stay.
Downhauler	Seven-eighths of the length of the haliard.
Sheets	Seven-eighths of the length of the jib-boom.
Pendents	One-fourth of the length of the sheets.
Flying-Jib Haliard	Once and a half the length of the fore-topgallant stay.
Sheets	The length of the jib-boom.
Tack	Two fathoms.
Downhauler	Seven-eighths of the length of the haliard.

RIGGING OF THE SPRITSAIL-TOPSAIL YARD

Horses	One-fifth of the length of the sprit-topsail yard.
Braces	Once and three-eighths of the length of the sprit-topsail yard.
Lifts and Strapping	Once the length of the sprit-topsail yard.
Haliard and Strapping	Three-fourths of the length of the sprit-topsail yard.
Lashing	One-fourth of the length of the haliards.
Parral-Ropes	One-tenth of the length of the sprit-topsail yard.
Clue-Lines and Strapping	Once and a quarter the length of the sprit-topsail yard.
Lacing & Ear-Rings	Once the length of the sprit-topsail yard.

RIGGING TO THE FOREMAST.

Wooldings	Thrice the length of the fore-mast in large, and twice and a half in small.
Girt-Lines and Strapping	Three-fourths of the length of the fore-mast.
Seising	One-twelfth of the length of the girt-lines.
Lashings	One-fourth of the length of the girt-lines.
Pendents of Tackles	One-fifth of the length of the fore-mast if two pair, and one-tenth if one pair.
Strapping	One-fifth of the length of the pendents if two pair, and one-third if one pair.
Seising	Half the pendents if two pair, and once the length if one pair.
Runners of Tackles	Twice the length of the pendents if two pair, and four times if one pair.
Strapping	One-fifth of the length of the runners if two pair, and one-tenth if one pair.
Falls of Tackles	Twice the length of the fore-mast if two pair, and once if one pair.
Strapping	One-tenth the length of the fore-mast if two pair, and one-twentieth if one pair.
Seising	Four times the strapping.
Shrouds	Twice and a quarter if ten pair. Twice the length of the fore-mast if nine pair, and once and three-fifths if seven pair.
	N. B. The length of the first warp is taken from the upper side of the bolsters on the trestle-trees, to the fore-most dead-eye in the channel, or from the middle of the opposite side of the mast-head down to the deck.

Seisings.

Seisings.	Eye	One-fourth the length of the shrouds.
	Throat	Half the length of the shrouds.
	End	Half the length of the shrouds.
	Laniards	Five-eighths of the length of the shrouds.
	Ratlings	Once and five-eighths of the length of the shrouds.
Stay		One-seventh of the length of the fore-mast, in fathoms.
	Seising	Once and a half of the length of the stay.
	Laniard	The length of the stay.
	Collar	Half the length of the stay.
	Seisings	Once and a half of the length of the collar.
	Lashing	Three-fourths of the length of the collar.
Preventer-Stay		The length of the fore-stay.
	Laniard	Two-thirds of the length of the stay.
	Collar	Half the length of the stay.
	Lashing	The length of the collar.
	Seisings	Twice and a half the length of the collar.
Catharpin-Legs		One-sixth the length of the fore-mast when six, and one-eighth if four, in number.
	Seisings	Four times the length of the catharpin-legs.
Jeers		Tie and Falls. In large ships with treble and double blocks, the falls are once and a quarter the length of their mast. If with double blocks, the length of the mast; and, when with a tie, the tie is one-fifth the length of the mast, and the falls the length of the mast.
	Strapping	One-eighth of the length of the mast.
	Seising	One fourth of the length of the mast.
Lashers.	Mast-head	Three-eighths of the length of the fore mast.
	Yard	One-third of the length of the mast-head lashing.
	Stoppers	Half the length of the yard-lashing.
Horses		One-sixth of the length of the fore-yard.
	Stirrups	The length of the horses.
	Seisings	The length of the horses.
	Laniard	One-third of the length of the horses.
Yard-Tackle Pendents		One-tenth of the length of the fore-yard.
	Falls	The length of the fore-yard and pendents.
	Strapping	The length of the pendents.
	Seising	Twice the length of the strapping.
	Inner Tricing-Lines	Three-sevenths of the length of the fore-yard.
	Outer Tricing-Lines	Three-sevenths of the length of the fore-yard.
	Strapping	One-sixth of the length of outer tricing lines.

RIGGING BELONGING TO THE FORE-YARD.

Braces	Once and one-sixth of the length of the fore-yard.
Pendents	One-eighth of the length of the fore-yard.
Preventer ditto	One fathom longer
Strapping	Half the length of the pendents.
Seising	One fourth of the length of the fore-yard.
Lashing	One-fourth of the length of the fore-yard.
Braces, Preventer In war only	Seven-eighths of the length of the other braces.
Strapping	Three fathoms in large, and two in small, ships.
Seising	Ten fathoms in large, and six in small, ships.
Lifts and Strapping.	Once and a quarter of the length of the fore-yard.
Seising	One-eighth of the length of the fore-yard.
Span for the Cap	One-tenth of the length of the fore-yard.
Short Span	One-third of the length of the span for the cap.
Jigger-Tackle	From twenty to thirty fathoms.
Strapping	One-eighth of the length of the tackle.
Truss-Pendents	One-fifth in large, and one-sixth the length of the fore-yard in small, ships.
Falls	Five-eighths of the length of the fore-yard.
Strapping	One-third of the length of the pendents.
Eye-Seisings	Three times the length of the strapping.
Nave-Line	One fifth of the length of the fore-yard.
Puddening the Yard.	Twelve fathoms in large, and six in small, ships.
Clue-Garnets	Three-fourths of the length of the fore-yard.
Straps about the Yard	One-eighth of the length of the clue-garnets.
Strapping	Two fathoms in large, and one in small.
Seising	One-eighth of the length of the clue-garnets.
Lashing	One-sixth of the length of the clue-garnets.
Buntling-Legs	Four-sevenths of the length of the fore-yard.
Falls	The length of the legs.
Strapping	One-fourth of the length of the falls.
Leech-Line Legs	The length of the buntline-legs.
Falls	The length of the buntline-falls.
Strapping	The length of the buntline-strapping.
Slab-Lines and Strapping	Three-sevenths of the length of the fore-yard.
Bowlines	Two-thirds of the length of the fore-yard.
Bridles	One-tenth of the length of the bowlines.
Strapping	Three-fourths of the length of the bridles.
Seising	Twice the length of the bridles.
Lashing	As long as the seising.
Ear-Rings	One-third of the length of the fore-yard.
Sheets and Strapping	The length of the fore-yard.
Seisings	One-sixth of the length of the fore-yard.
Stoppers	One-third of the length of the seising.

Tacks,

Tack, single	Half the length of the fore-yard.
Tacks, double	Once and three-fourths of the length of single tacks.
Strapping	One-eighth of the length of the tacks.
Seising	One-fifth of the length of the tacks.
Stoppers	The length of the strapping.
Laniards	The length of the stoppers.
Gammoning the Bumkin	Sixteen fathoms in large, and ten fathoms in small, ships.
Laniard	Twelve in large, and six in small.
Slings	One-tenth of the length of the fore-yard.
Strap	Half the length of the slings.
Seisings	Twice the length of the slings.
Laniard	Three-fourths of the length of the slings.
Staysail-Haliard	Twice the length of the preventer-stay, and two fathoms.
Sheets	Twice the length of the preventer-stay.
Strapping	One-third of the length of the preventer-stay.
Tack	Two fathoms.
Downhauler	Twice the length of the preventer-stay.
Strapping	One-third of the other strapping.
Studdingsail-Haliards, Inner	Three-fifths of the length of the fore-yard.
Ditto, Outer	The length of the fore-yard.
Sheets	One-sixth of the length of the fore-yard.
Tacks	Five-sevenths of the length of the fore-yard.
Strapping	The length of the sheets.

RIGGING BELONGING TO THE FORE-TOPMAST.

Burton Pendents	One-ninth of the length of their topmast.
Falls	The length of their topmast.
Strapping	Three-fourths of the length of the pendents.
Shrouds, first warp	Seven-eighths of the length of their topmast, in feet.
Whole length	Twice the length of the first warp for every pair.
Seisings. Eye	One-fourth of the whole length of the shroud.
Seisings. Throat.	Once and three-fourths of the length of the eye-seisings.
Seisings. End	Once and a half the length of the eye-seising.
Laniards	Two-thirds of the whole length of the shrouds.
Ratling	Once and three-eighths of the whole length of the shrouds.
Standing-Backstays.	Twice the length of their topmast, in feet, for the first warp, and twice that for every pair.
Seisings. Eye	One-eighth of the whole length of the backstays.
Seisings. Throat.	Once and three-fourths of the length of the eye-seisings.
Seisings. End	Once and a half the length of the eye-seisings.
Laniards	One fifth of the whole length of the backstays.

Breast-Backstay Runners	One-sixth of the length of their topmast, in fathoms.
Falls	One-third of the length of their topmast.
Strapping	One-sixth of the length of the falls.
Stay	Two-fifths of the length of its topmast.
Collar	One-sixth of the length of its stay.
Tackle	The length of its stay.
Strapping	One-seventh of the length of its tackle.
Seising	Twice the length of the strapping.
Preventer-Stay	The length of its topmast-stay.
Collar	One-eighth of the length of its stay.
Tackle	The length of its stay in large ships, and seven-eighths of its stay in small ships.
Strapping	One-sixth of the length of its tackle.
Seising	Three times the strapping.
Lashing the Collar	One-fourth of the length of the stay.
Shifting-Backstay	Five-eighths of the length of its topmast.
Tackles	Three-fourth of the length of its topmast.
Strapping	One fourth of the length of its stay.
Futtock-Shrouds	Three-eighths of the whole length of the topmast-shrouds.
Seisings, Upper.	Once and a quarter the length of the futtock-shrouds.
Lower.	Seven-eighths of the length of the upper-seisings.
Ratlings	Once and a quarter the length of their shrouds.
Top-Rope Pendents	Two-thirds of the length of their topmast.
Falls	Three times and a quarter in large ships, and twice and a quarter in small, the length of their pendents.
Tie	Three-fourths of the length of its topmast.
Strapping	One-fifth of the length of the tie.
Seising	Once and a half the strapping.
Lashers. Mast-head.	One fifth of the length of its topmast.
Yard	Half the mast-head lashing.
Haliards	Twice the length of their topmast.
Strapping	One-seventh of the length of the topmast.
Seising	Twice the strapping.

RIGGING BELONGING TO THE FORE-TOPSAIL YARD.

Horses	One-fifth of the length of their yard.
Stirrups	Three-fourths of the length of their horses.
Braces	Once and two-thirds of the length of their yard.
Pendents	One-sixth of the length of their yard.
Preventer	One fathom longer.
Strapping	Half the length of the pendents.

LIFTS	Once and one-eighth of the length of their yard.
Beckets	Three fathoms in large, and two fathoms in small, ships.
Strapping	Three times the length of the beckets.
Seising	Three times the strapping.
PARRAL-ROPES	One-fifth of the length of their yard.
Racking and Seising	Once and one-third of the length of the parral-rope.
CLUE-LINES	Once and a half the length of their yard.
Strapping	One-tenth of the length of the clue-lines.
BUNTLINES and STRAPPING	Six fathoms more than the length of their yard.
LEECH-LINES and STRAPPING	Half the length of their yard.
BOWLINES and STRAPPING	The length of their yard.
Bridles	One-fourth of the length of the yard.
Strapping	Two fathoms in large, and one and a half in small, ships
Lashing	The length of the bridles.
REEF-TACKLE PENDENTS	Three-fourths of the length of their yard.
Falls	The length of their yard.
Strapping	Three fathoms in large ships, and one and a half in small.
EAR-RINGS	Three-fourths of the length of their yard.
SHEETS	Seven-eighths of the length of their yard.
Straps for the Sheet-Blocks.	One-tenth of the length of the sheets.
Straps for the Quarter-Blocks	Twice the length of the former for large, and once and a half the length of the former for small, ships.
Lashers for Quarter-Blocks	Twice the sheet-block strapping.
Seising	Three-eighths of the length of the sheets.
Span	One-sixth of the length of the sheets.
Stoppers	Half the length of the span.
SLINGS	One-fifth of the length of their yard.
STAYSAIL-STAY	One fathom longer than the top-stay.
Tackle	Two-thirds of the length of its stay.
Haliard and Strapping	Once and three-fourths of the length of its stay.
Sheets and Strapping	Once and a half the length of its stay.
Outhauler	Seven-eighths of the length of its stay.
Downhauler& Strapping	Once and one-third of the length of its stay.

Studdingsail-Haliards	Once and two-thirds of the length of its topsail-yard.
Sheets	Five-sixths of the length of the fore-topsail yard.
Tacks	Once and one-sixth of the length of the fore-topsail yard.
Downhaulers	The length of the fore-topsail yard.
Boom-Tackles	Once and two-fifths of the length of the fore-topsail yard.
Tails	One-third of the length of the fore-topsail yard.
Straps	One-third of the length of the tails.

RIGGING BELONGING TO THE FORE-TOPGALLANT MAST.

Shrouds, length of the first warp	Once and one-third of the length of the fore-topmast, in feet.
Length of each pair	Twice the length of the first warp.
Laniards	One-sixth of the length of the shrouds.
Standing-Backstays length of the first warp	Twice and three-eighths of the length of the fore-topmast, in feet.
Length of each pair	Twice the length of the first warp.
Laniards	One-fourth of the length of the backstays.
Stay	Six fathoms longer than the topmast-stays.
Strapping	One fathom and a half in large ships, and one fathom in small.
Tackle	Half the length of the stay.
Strapping	One fathom and a half.
Flagstaff-Stay	The same length in large ships, and five-eighths of the length of the topgallant-stay in small.
Haliards	Once and one-eighth longer than the fore-topmast.
Tie	Three-tenths of the length of the fore-topmast.
Haliard	Once and three-fourths the length of the tie.
Strapping	One fathom and a half in large ships, and one in small.

RIGGING BELONGING TO THE FORE-TOPGALLANT YARD.

Horses	One-fifth of the length of their yard.
Braces	Three times of the length of their yard.
Pendents	One-tenth of the length of the braces.
Strapping	Half the length of the brace-pendents.
Lifts and Strapping	Once and a half the length of their yard.
Parral-Ropes	One-eighth of the length of their yard.
Clue-Lines and Strapping	Twice the length of their yard.

Bowlines & Strapping	The length of the clue-lines.
Bridles	One-eighth of the length of the bowlines.
Sheets	The length of the topsail-yard.
Ear-Rings	Three-fourths of the length of their yard.
Shifting-Backstay	Half the standing-backstays.
Tackles and Strapping.	Half of their backstay.
Studdingsail-Haliards	Once and a quarter of the length of the fore-topmast.
Sheets	Half the length of the haliards.
Tacks	Ten fathoms more than the length of the sheets.
Downhauler	The length of the sheets.
Strapping	One-fourth of the length of the fore-topgallant yard.

RIGGING BELONGING TO THE MAIN MAST

Wooldings	Three times the length of the main-mast in large, and twice and a half the length of the main-mast in small.
Girt-Lines and Strapping	Three-fourths of the length of the main-mast.
Seisings	One-twelfth of the length of the girt-lines.
Lashings	One-fourth of the length of the girt-lines.
Pendents of Tackles.	One-sixth of the length of the main mast if two pair, and one-twelfth if one pair.
Strapping	One-fifth of the length of the pendents if two pair, and one-third if one pair.
Seising	Half the length of the pendents if two pair, and once the length if one pair.
Runners of Tackles	Twice the length of the pendents if two pair, and four times the length of the pendents if one pair.
Strapping	Six fathoms in large, and three in small.
Falls of Tackles	Twice the length of the main mast if two pair, and once if one pair.
Strapping	One-tenth the length of the main mast if two pair, and one-twentieth if one pair.
Seising	Four times the length of the strapping.
Shrouds	Twice and a quarter if ten pair. Twice the length of the mast if nine pair, and once and three-fifths if seven pair.
	N. B. The length of the first warp is taken from the upper side of the bolsters upon the trestle-trees, to the fore-most dead-eye in the channel, or from the middle of the opposite side of the mast-head down to the deck.

Seisings.

Seisings.	Eye	One-fourth of the length of the shrouds.
	Throat	Twice the length of the eye-seisings.
	End	Twice the length of the eye-seisings.
	Laniards	Five-eighths of the length of the shrouds.
	Ratlings	Once and five-eighths of the length of the shrouds.
STAY		One-fifth of the length of the mast, in fathoms.
	Seisings	The length of the stay.
	Laniards	Three-fourths of the length of the stay.
	Collar	Half the length of the stay.
	Worming	Five times the length of the collar.
	Seisings	Once and three-fourths of the length of the collar.
	Lashing	Twice the length of the collar.
PREVENTER-STAY		Two fathoms less than the main-stay.
	Laniard	Half the length of the preventer-stay.
	Collar	One-third of the length of the preventer-stay.
	Lashing	The length of the collar.
	Seising	The length of the stay.
CATHARPIN-LEGS		One-seventh of the length of the mast when six, and one-ninth when four.
	Seisings	Four times the length of the catharpin-legs.
STAY-TACKLE PENDENT		One-fourth of the length of the main-stay.
	Falls	Nine times the length of the pendent.
	Strapping	Three-fourths of the length of the pendent.
	Seising	Three times the length of the pendent.
	Lashing	Two fathoms less than the seising.
FOREMOST-STAY-TACKLE FAIL		The same length as the stay-tackle fall.
	Strapping	The same length as the stay-tackle strapping.
	Seising	The same length as the stay-tackle seising.
JEARS		Tie and Falls. In large ships with treble and double blocks, the length of the falls are once and a quarter the length of their mast. If with double blocks, the length of their mast; and, when with a tie, the tie is one-fifth the length of the mast, and the falls the length of the mast.
	Strapping	One-eighth of the length of the mast.
	Seising	One-fourth of the length of the mast.
Lashers.	Mast-head	Three-eighths of the length of the mast.
	Yard	One-third of the length of the mast-head lashing.
	Stoppers	Half the length of the yard-lashing.

RIGGING BELONGING TO THE MAIN-YARD.

Horses	One-sixth of the length of their yard.
Stirrups	The length of their horses.
Seisings	The length of the horses.
Laniard	One-third of the length of the horses.
Yard-Tackle Pendents	One-tenth of the length of their yard.
Falls	Once and one sixth of the length of the yard in large ships, and the length of the yard in small.
Strapping	The length of the pendents.
Seising	Twice the length of the strapping.
Inner Tricing-Lines	Three-sevenths of the length of their yard.
Outer Tricing-Lines	Three-sevenths of the length of their yard.
Strapping	One-sixth of the length of the outer tricing-lines.
Braces and Strapping	The length of their yard.
Pendents	One-tenth of the length of their yard.
Preventer	One fathom longer.
Strapping	One-third of the length of the pendents.
Seising	The length of the pendents.
Braces, Preventer, In war only	Seven-eighths of the other braces.
Strapping	Three fathoms in large, and two in small.
Seising	Ten fathoms in large, and six in small.
Lifts and Strapping.	Once and one-fourth the length of their yard.
Seising	One-eighth of the length of their yard.
Span for the Cap	One-tenth of the length of the yard.
Short Span	One-third of the length of the cap-span.
Jigger-Tackles	From twenty to thirty fathoms.
Strapping	One-eighth of the length of the tackle.
Truss-Pendents	One-fifth in large, and one-sixth the length of their yard in small, ships.
Falls	Five-eighths of the length of the yard.
Strapping	One third of the length of the pendents.
Eye-Seisings	Three times the length of the strapping.
Nave-Line	One fifth of the length of the yard.
Puddening the Yard.	Fourteen fathoms in large ships, and six in smaller.
Clue-Garnets	Three-fourths of the length of their yard.
Straps about the Yard	One-eighth of the length of the clue-garnets.
Strapping	Two fathoms in large ships, and one in smaller.
Seising	One-eighth of the length of the clue-garnets.
Lashing	One-sixth of the length of the clue-garnets.
Buntline-Legs	Four-sevenths of the length of their yard.
Falls	The length of the legs.
Strapping	One-fourth of the length of the legs.

Leech

LEECH-LINE LEGS	The length of the buntline-legs.
Falls	The length of the leech-line legs.
Strapping	The length of the buntline-strapping.
SLAB-LINES and STRAPPING	Three-sevenths of the length of their yard.
BOWLINES	Three-fifths of the length of their yard.
Bridles	One-fourth of the length of the bowlines.
Strapping	One-fourth of the length of the bridles.
Seising	The length of the strapping.
Lashing	The length of the strapping.
Tackle	The length of the bridles.
Strapping.	Three fathoms in large and two fathoms in small ships.
EAR-RINGS	One-third of the length of their yard.
SHEETS and STRAPPING	The length of their yard.
Seisings	One-sixth of the length of their yard.
Lashers	Six fathoms.
Stoppers	Four fathoms.
TACKS, single	Half the length of their yard.
TACKS, double	Once and three-fourths of the length of the single-tacks.
Stoppers	Four fathoms.
Laniards	Six fathoms in large, and five fathoms in small.
LANIARD for the Pudden and Dolphin	Ten fathoms in large, and six in small.
SLINGS	One-tenth of the length of their yard.
Strap	Half the length of the slings.
Seising	Twice the length of the slings.
Laniard	Three-fourths of the length of the slings.
QUARTER-TACKLE PENDENTS	Ten fathoms in large, and seven fathoms in small.
Falls	Seven-eighths of the length of the yard.
Strapping	One-tenth of the length of the falls.
Seising	Twice the length of the strapping.
LUFF-TACKLES	From thirty to twenty-five fathoms each tackle.
Strapping	Two fathoms to each tackle.
Seising	Five fathoms to each tackle.
STAYSAIL-STAY	One-seventh of the length of its mast.
Collar	Two fathoms.
Seisings	Six fathoms.
Laniard	Four fathoms.
HALIARD	Two-fifths of the length of the main-mast.
SHEETS	The length of the staysail-stay.
Strapping	One-third of the length of the sheets.
TACKS	One-third of the length of the sheets.
DOWNHAULER	Once and a half the length of the staysail-stay.
Strapping	One fathom.

Studding-sail-Haliards Inner	Three-fifths of the length of the main-yard.
Ditto, Outer	Two fathoms longer than the main-yard.
Sheets	Three-tenths of the length of the main-yard.
Tacks	Five-ninths of the length of the main-yard.
Strapping	One fifth of the length of the main-yard.

RIGGING BELONGING TO THE MAIN-TOPMAST.

Burton Pendents	One-ninth of the length of the main-topmast.
Falls	The length of the main-topmast.
Strapping	Two-thirds of the length of the pendents.
Shrouds, first warp	Seven-eighths of the length of the main-topmast, in feet.
Whole length	Twice the length of the first warp for every pair.
Seisings. Eye	One-fourth of the whole length of the shrouds.
Throat.	Once and three-fourths of the length of the eye-seisings.
End	Once and a half the length of the eye-seisings.
Laniards	Three-fifths the whole length of the shrouds.
Ratlings	Once and three-eighths of the whole length of the shrouds.
Standing-Backstays.	Twice the length of their topmast, in feet, for the first warp, and twice that for every pair.
Seisings. Eye	One-eighth of the whole length of the backstays.
Throat.	Once and three-fourths of the length of the eye-seising.
End	Once and a half the length of the eye-seising.
Laniards	One fifth of the length of the backstays.
Breast-Backstay Runners	One-seventh of the length of the topmast, in fathoms.
Falls	One-third of the length of the topmast.
Strapping	One-sixth of the length of the falls.
Stay	Two-fifths of the length of its topmast.
Collar	One-sixth of the length of its stay.
Tackle	The length of its stay.
Strapping	One-sixth of the length of the tackle.
Seisings	One third of the length of the stay.
Lashing	Seven fathoms in large, and six in small, ships.
Preventer-Stay	The length of the topmast-stay.
Collar	One-sixth of the length of its stay.
Tackle	The length of its stay.
Strapping	One-eighth of the length of its tackle.
Seising	Three times the length of the strapping.
Lashing the Collar	One-fourth of the length of the stay.

Shifting-Backstays	Five-eighths of the length of their topmast.
Tackles	Ten fathoms for each tackle in small, and twelve fathoms in large, ships.
Strapping	One fathom and a half to each tackle in small, and two fathoms in large.
Futtock-Shrouds	Three-eighths of the whole length of the topmast-shrouds.
Seisings, Upper.	Once and one third of the length of the futtock-shrouds.
Lower.	Seven-eighths of the length of the upper-seising.
Ratling	Once and one-fourth the length of their shrouds.
Top-Rope Pendents	Two-thirds of the length of the topmast.
Falls	Three times and a quarter in large, and twice and a quarter in the length of the pendents in small, ships.
Tie	Three-fourths of the length of the topmast.
Strapping	One-fifth of the length of the tie.
Seising	Once and a half the length of the strapping.
Lashers. Mast-head.	One fifth of the length of the topmast.
Yard	Half the mast-head lashing.
Haliards	Twice the length of the topmast.
Strapping	One-eighth of the length of the topmast.

RIGGING BELONGING TO THE MAIN-TOPSAIL YARD.

Seising	Twice the strapping.
Horses	One-fifth of the length of the main-topsail yard.
Stirrups	Three-fourths of the length of the horses.
Braces	Once and one-fifth of the length of their yard.
Pendents	One-eighth of the length of the yard.
Preventer	One fathom longer.
Strapping	Three-eighths of the length of the pendents.
Span about the Mizen-Mast	Six to four fathoms.
Lifts	Once and one-eighth the length of the yard.
Beckets	Two to three fathoms.
Strapping	Three times the length of the beckets.
Seising	One-fourth of the length of the lifts.
Parral-Ropes	One-fifth of the length of the yard.
Racking and Seising	Once and one-third of the parral-rope.
Clue-Lines	Once and a half of the length of the main-top-sail yard.
Strapping	One-tenth of the length of the clue-lines.
Bunt-Lines and Strapping	Six fathoms more than the length of the yard.
Leech-Lines and Strapping	Half the length of the yard.
Bowlines & Strapping	The length of their yard.
Bridles	One-fourth of the length of the yard.
Frapping & Lashing.	One-fifth of the length of the yard.
Seising	Six fathoms in large ships, and four in small.

Reef-

REEF-TACKLE PENDENTS	Three-fourths of the length of the main-topsail yard.
Falls	The length of their yard.
Strapping	Three fathoms in large ships and one and a half in small.
EAR-RINGS	Two-thirds of the length of the main-topsail yard.
SHEETS	Seven-eighths of the length of the main-topsail yard.
STRAPS for Sheet-Blocks	One-tenth of the length of the sheets.
STRAPS for Quarter-Blocks	Twice in large ships, and once and a half the length of the straps for the sheet-blocks in small.
LASHERS for Quarter-Blocks	Twice the strapping for sheet-blocks.
Seisings	Three-eighths of the length of the sheets.
Span	One-sixth of the length of the sheets.
Stoppers	Half the length of the span.
SLINGS	One-fifth of the length of the main-topsail yard.
STAYSAIL HALIARD and STRAPPING	Twice the length of the preventer-stay.
SHEETS and STRAPPING	Once and a half the length of the stay.
Pendents	Four fathoms.
TACK	Five in large ships, and three fathoms in small.
DOWNHAULER	Three-fifths of the length of the haliard.
Strapping	One fathom.
BRAILS	The length of the haliard.
MIDDLE-STAYSAIL-STAY	The length of the preventer-stay.
Tackle	Two fathoms less than the stay.
HALIARD	Two fathoms less than the topmast staysail-haliards.
SHEETS	The length of the haliard.
TACK	Five fathoms in large, and four in small, ships.
DOWNHAULER	Two-thirds of the length of the haliard.
Strapping	Eight in large ships, and five fathoms in small.
TRICING-LINE	Three-fifths of the length of the downhauler.
STUDDINGSAIL-HALIARDS	Once and a half the length of their topsail-yard.
Sheets	Half the length of the haliards.
Tacks	Two-thirds of the length of the haliards.
Downhaulers	Three-fifths of the length of the haliards.
Boom-Tackles	Four-fifths of the length of the haliards.
LASHING for BOOMS	Twenty fathoms.
Tails	One-fifth of the length of the haliards.
Straps	One-third of the length of the tails.

RIGGING BELONGING TO THE MAIN-TOPGALLANT MAST.

SHROUDS, length of the first warp	Once and one-third of the length of the main-topmast, in feet.
Length of each pair . . .	Twice the length of the first warp.
Laniards	One-sixth of the length of its shrouds.
STANDING-BACKSTAYS, length of the first warp	Twice and three-eighths of the length of the main-topmast, in feet.
Length of each pair	Twice the length of the first warp.
Laniards	One-fourth of the length of the backstays.
STAY	The length of its topmast-stay.
Strapping . . .	One fathom.
FLAGSTAFF-STAY . . .	Three fathoms longer than the topgallant-stay.
Haliards . . .	Once and one-eighth longer than the main-topmast.
TIE	Three-tenths of the length of the main-topmast.
Haliard	Twice the length of the tie.
Strapping . . .	One fathom and a half.

RIGGING BELONGING TO THE MAIN-TOPGALLANT YARD.

HORSES	One fifth of the length of their yard.
BRACES	Once and three-fourths of the length of their yard.
Pendents . .	One-eighth of the length of the braces.
Strapping . . .	Three fathoms in large and two in small.
LIFTS single, and STRAPPING . . .	Once and a half the length of their yard.
PARRAL-ROPES	One-eighth of the length of their yard.
CLUELINES and STRAPPING . . .	Twice the length of their yard.
BOWLINES & STRAPPING	The length of the clue-lines.
BRIDLES	One-eighth of the length of the bowlines.
SHEETS	The length of the top-sail-yard.
EAR-RINGS	Three-fourths of the length of their yard.

SHIFTING-

Shifting-Backstay	Half the standing-backstay.
Tackles	Twenty fathoms in large ships, and fourteen fathoms in small ships.
Strapping	One fathom and a half.
Staysail-Stay	Ten fathoms more than the topgallant-stay.
Haliards	Ten fathoms more than their stay.
Sheets	The length of the haliards.
Tack	Seven fathoms in large, and six in small, ships.
Downhauler	Three fathoms less than the staysail-stay.
Strapping	Three fathoms in large, and two in small ships.
Studdingsail-Haliards	Once and a quarter the length of the main-topmast.
Sheets	Half the length of the haliards.
Tacks	Ten fathoms more than the sheets.
Downhauler	The length of the sheets.
Strapping	One-fourth of the length of the fore-topgallant yard.

RIGGING BELONGING TO THE MIZEN-MAST.

Wooldings	Once and three-fifths of the length of the mizen-mast.
Girt-Lines and Strapping	Three-fourths of the length of their mast.
Seisings	Six fathoms in large, and five in small, ships.
Lashings	Eight fathoms in large, and seven in small, ships.
Burton-Pendents	Eight fathoms in large, and six in small, ships.
Falls	Three-fourths of the length of the mizen-mast.
Strapping	Four fathoms in large, and three in small.
Shrouds	Once and one-eighth of the length of their mast if six pair, once, if five-pair, and three-fourths, if four pair.
Length of the first warp.	The same rule as for the main-mast.
Seisings. Eye	One-fourth of the length of the shrouds.
Throat	Twice the length of the eye-seising.
End	Once and a half of the length of the eye-seising.
Laniards	Half the length of the mizen-shrouds.
Ratlings	Once and a half of the length of the shrouds.

STAY	One-sixth of the length of the mizen-mast.
Seisings	Half the length of the stay.
Laniard	Six fathoms in large, and five fathoms in small, ships.
Collar	Three and a half in large, and two fathoms and a half in small, ships.
Seising	Three fathoms.
Lashing	Three fathoms.

RIGGING BELONGING TO THE MIZEN YARD, OR GAFF.

JEARS	Three-quarters of the length of the mizen-mast if treble and double, and half if double and single.
Strapping	Eight fathoms in large, and five in small, ships.
Seising	Ten fathoms in large, and eight in small, ships.
Lashing Mast-head	One-eighth of the length of the mizen-mast.
Yard	Half the mast-lashing.
DERRICK	Half the length of the mizen-mast.
Span	Four fathoms in large, and three in small, ships.
Strapping	Two and a half fathoms in large, and two in small, ships.
Seising	One-eighth of the length of the mizen-mast.
Lashing	Eight fathoms in large, and seven in small, ships.
VANG-PENDENTS	One-seventh of the length of the mizen-mast.
Falls	Thrice the length of the pendents.
Strapping	One fathom.
BOWLINES	One-fourth of the length of the mizen-yard.
Strapping	Three fathoms in large, and two in small, ships.
BRAILS PEEK-LEGS	Twelve fathoms in large, and ten in small, ships.
Falls	Eighteen fathoms in large, and sixteen in small.
Middle	One-fourth of the length of the mizen-mast.
Throat	Once and a quarter of the length of the middle-brails.
Foot	Once and three-quarters of the length of the middle-brails.
Strapping, Throat	One fathom.
Strapping, Foot and Middle	Nine fathoms in large, and seven in small, ships.
LACING to Mast	One-fourth of the length of the mizen-mast.
Yard	Seven fathoms more than the mast-lashing.
EAR-RINGS	Ten fathoms in large, and eight in small, ships.
PEEK-HALIARDS	One-fourth of the length of the mizen-mast.
SHEET	One-third of the length of the mizen-mast.
Strapping	Three fathoms and a half in large, and two fathoms in small, ships.
Seising	Twice the quantity of strapping.
TACK	Five fathoms in large, and three in small.
SLINGS	Six fathoms in large, and four in small.

Staysail-Stay	One-sixth of the length of the mizen-mast.
Collar	Three fathoms and a half in large, and two in small.
Seising	The same as the collar.
Lashing	The same as the collar.
Laniard	Twice the length of the collar.
Haliards	Twice the length of the staysail-stay.
Sheets	The length of the staysail-stay.
Tacks	Four fathoms in large, and two in small.
Downhauler	The length of the staysail-stay.
Strapping Sheets and Haliard	Three fathoms in large, and two fathoms in small.
Strapping Downhauler	Two fathoms in large, and one fathom in small.
Brails	Two fathoms less than the haliards.

LENGTH OF THE RIGGING BELONGING TO THE DRIVER.

Topping-Lifts	Four-sevenths of the length of the driver-boom, taking fathoms for length.
Span	Six fathoms in large ships, and four fathoms in small.
Falls	Forty-six fathoms from 110 to 64 guns, forty fathoms from 50 to 36 guns, thirty-six fathoms from 32 to 28 guns, thirty fathoms from 24 to 20 guns, and twenty-four fathoms in all under.
Guy-Pendents	Twelve fathoms from 110 to 36 guns, and ten fathoms in all under.
Falls	Sixty fathoms from 110 to 28 guns, and fifty fathoms in all under.
Boom-Sheet	Twenty-five fathoms from 110 to 28 guns, and twenty-four fathoms in all under.
Horses	Fourteen fathoms from 110 to 64 guns, twelve fathoms from 50 to 26 guns, and ten fathoms in all under.
Sheet-Pendent	Fourteen fathoms from 110 to 44 guns, twelve fathoms from 38 to 36 guns, and ten fathoms in all under.
Falls	Twenty fathoms from 110 to 28 guns, and eighteen fathoms in all under.
Brails	One hundred and eight fathoms from 110 to 28 guns, and ninety-six fathoms in all under.
Lacing to yard	Thirty fathoms from 110 to 28 guns, and twenty-four fathoms in all under.
Tack-Tackle	Twelve fathoms from 110 to 36 guns, and ten fathoms in all under.
Downhauler	One-fourth of the length of the mizen-mast.
Lashing	Eight fathoms in large, and six in small ships.

LENGTH OF THE RIGGING BELONGING TO THE CROSS-JACK-YARD.

Truss-Pendent	Six fathoms in large, and four in small, ships.
Falls	One-third of the length of the cross-jack yard.
Strapping	Three fathoms in large, and two in small, ships.
Seising	Eight in large, and six in small, ships.
Span about the Cap	Two fathoms.
Braces	Two fathoms longer than their yard.
Brace-Pendents	Six fathoms in large, and five in small, ships.
Preventer	One fathom longer than the brace-pendents.
Strapping	Two fathoms.
Lifts, running	Six-sevenths of the length of their yard.
Strapping	Three fathoms in large, and two in small, ships.
Slings	One-tenth of the length of their yard.
Strapping	Two fathoms in large, and one and a half in small, ships.
Seising	Once and a half the strapping.
Lashing	Five fathoms in large, and four in small.

LENGTH OF THE RIGGING BELONGING TO THE MIZEN-TOPMAST.

Shrouds, first warp	Seven-eighths of the length of their topmast, in feet.
Whole length	Once and one-sixth of the length of their topmast in fathoms, if four pair, and once the length if three pair.
Seisings	Once and a half the length of the shrouds.
Laniards	Two-thirds of the length of the shrouds.
Ratling	Once and a quarter the length of the shrouds.
Standing-Backstay	Twice the length of their topmast, in feet, for the first warp, and double that for every pair.
Seisings	Half the length of the backstays.
Laniards	Sixteen fathoms if two pair, and eight for one pair.
Stay	Three-tenths of the length of its top-mast.
Laniard	Half the length of the stay.
Collar	One-fourth of the length of the stay.
Seising and Lashing	Six fathoms.
Flagstaff-Stay	The length of the topmast-stay.
Haliards	Half the length of the topmast.
Shifting-Backstay	One fathom longer than the topmast-stay.
Tackle	Twelve fathoms in large, and ten fathoms in small.
Strapping	Four fathoms in large, and three fathoms in small.

Futtock-Shrouds	Three-tenths of the length of the topmast-shrouds.
Seising	Twice the length of the topmast-shrouds.
Ratling	One fathom longer than their shrouds.
Top-Rope Pendents	Three-eighths of the length of their topmast.
Falls	Twice and a half of the length of their pendents.
Tie	One-third of the length of the topmast.
Haliard	The length of the topmast.
Strapping	Four fathoms in large, and two in small, ships.
Lashing	Three fathoms.

RIGGING BELONGING TO THE MIZEN-TOPSAIL YARD.

Horses	One fifth of the length of their yard.
Stirrups	Half the length of the horses.
Braces and Strapping	Nine fathoms longer than their yard.
Pendents	Four fathoms in large, and three in small.
Lifts	Ten fathoms longer than their yard.
Strapping	Three fathoms in large, and two in small.
Parral-Ropes	One-eighth of the length of their yard.
Clue-Lines and Strapping	Once and a half the length of their yard.
Buntlines and Strapping	Two fathoms longer than their yard.
Leech-Lines and Strapping	Three-sevenths of the length of the yard.
Bowlines and Strapping	The length of their yard.
Bridles	One-fifth of the length of the bowlines.
Reef-Tackle Pendents	Three-fourths of the length of their yard.
Falls	Six fathoms longer than the pendents.
Strapping	One fathom.
Ear-Rings	Seven-eighths of the length of the yard.
Sheets	Seven-eighths of the length of the yard.
Strapping	Two fathoms for shoulder-block, and three fathoms in large, and two in small, for the other block.
Seising	Fourteen fathoms in large, and twelve in small.
Lashing	Five fathoms in large, and four in small.
Staysail-Haliard	Three-fifths of the length of the mizen-topmast.
Sheets	Two fathoms more than the haliard.
Tacks	Two fathoms.
Downhauler	Seven-tenths of the length of the haliards.
Strapping	Two fathoms in large, and one in small.

RIGGING OF THE MIZEN-TOPGALLANT MAST AND YARD.

SHROUDS, first warp	Once and one-third of the length of the mizen-topmast, in feet.
Whole length	Once and three-fourths of the length of their topgallant-mast, in fathoms.
Laniards	One-third of the length of their shrouds.
BACKSTAYS	Once and three-fourths of the length of their topgallant-mast.
Laniards	Six fathoms.
STAY	Three-fourths of the length of its topgallant-mast.
Laniard	Four fathoms in large, and three in small.
FLAG-HALIARD	Once the length of the mizen-topmast.
TIE	One-third of the length of its topgallant-mast.
Haliard	Once and one-third of the length of the topgallant-mast.
HORSES	One-fifth of the length of their yard.
BRACES	Twice the length of their yard.
LIFTS, single	The length of their yard.
PARRAL-ROPES	One-seventh of the length of the topgallant-yard.
CLUE-LINES	Five fathoms more than the length of the braces.
BOW-LINES	Two fathoms less than the clue-lines.
Bridles	Three fathoms in large, and two in small, ships.
SHEETS	The length of their yard.
EAR-RINGS	Three-fourths the length of their yard.
Strapping	Three fathoms in large, and two in small.

LENGTH
OF THE
NECESSARY ROPES
FOR A
SHIP OF EACH CLASS.

LENGTH
OF THE
NECESSARY ROPES
FOR A SHIP OF EACH CLASS.

NAMES.	110 to 100 Guns.	98 to 90 Guns.	80 Guns.	74 Guns.	64 Guns.	50 to 44 Guns.	38 Guns.	36 Guns.	32 Guns.	28 Guns.	Guns.	22 to 20 Guns.	16 to 14 Guns.
	FATHOMS IN LENGTH.												
Viol, cabled	46	46	45	45	42	34	—	—	—	—	—	—	—
Strapping	10	10	10	10	10	8	—	—	—	—	—	—	—
Seizing	12	12	12	12	12	10	—	—	—	—	—	—	—
Lashing	10	10	10	10	10	8	—	—	—	—	—	—	—
Winding-Tackle Pendent	13	13	13	13	12	11	12	11	9½	—	—	—	—
Fall	82	80	80	78	75	68	46	46	46	—	—	—	—
Strapping	18	18	18	18	18	16	12	12	12	—	—	—	—
Seizing	20	20	20	20	20	16	14	14	14	—	—	—	—
Cat-Falls	126	124	120	108	100	82	74	72	66	62	58	54	48
Laniards	30	30	30	28	24	22	20	20	20	18	18	10	10
Stoppers	6	6	6	6	6	4	3	3	3	3	3	3	2
Davit-Guys Mast-head	34	32	30	30	29	27	26	26	26	24	22	22	22
Fore	24	22	20	20	19	17	16	16	16	14	12	12	12
After	28	26	24	24	21	19	18	18	18	16	14	14	14
Fish-Tackle Pendent	11	15	14	13	51½	9	9	9	8	8	7½	7	6
Fall	52	52	50	50	48	42	40	40	39	38	37	36	30
Strapping	6 5	6 5	6 5	6 5	6 5	5 4	9	9	9	9	8½	8	7
Seizing	10 10	10 10	10 10	10 10	10 10	9 9	16	16	16	14	14	14	12
Laniard	16	16	16	16	16	15	14	14	14	14	13	12	10

Anchor-Stock Tackle-Fall	30	30	30	30	30	22	22	22	20	19	18	18	18
Bill-Pendent	12	12	12	12	11	8½	8½	8½	8	8	7½	7½	7
Strapping	2	2	2	2	2	2	2	2	2	2	2	2	2
Seizing	9	9	9	9	9	9	—	—	—	—	—	—	—
Stoppers.—Sheet-Anchor	10	10	10	10	10	7	7	7	6	6	5½	5½	5
Best Bower	10	10	10	10	10	7	7	7	6	6	5½	5½	5
Small Bower	10	10	10	10	10	7	7	7	6	6	5½	5½	5
Spare	10	10	10	10	10	7	7	7	6	6	5½	5½	5
Seizing	36	36	36	36	36	28	28	28	21	20	18	16	14
Wing, cabled	20	20	20	20	20	14	14	14	14	14	13½	13	12
Dog	20	20	20	20	20	14	14	14	14	14	13½	13	12
Seizing	36	36	36	36	36	26	26	26	24	22	20	18	16
Stream-Anchor	7	7	7	7	7	6	6	6	4	4	3½	3	3
Kedge	6	6	6	6	6	4	4	4	3	3	3	3	3
Deck and Bit cabled	36	36	36	36	36	30	30	30	27	27	24	24	22
Laniard	50	50	50	50	50	42	42	42	35	35	30	30	25
Seizing	49	49	49	49	49	34	34	34	28	28	52	52	48
	49	49	49	49	49	34	34	34	28	28			
Preventer, 2 each	18	18	18	18	18	15	15	15	15	15	13½	12	10
Ditto, 1	20	20	20	20	20	—	—	—	—	—	12	12	12
Ditto, 2	8	8	8	8	8	18	18	18	18	18	15	12	10
Ditto, 3	12	12	12	12	12	11	11	11	11	11	9	8	—
Ditto, 1	6	6	6	6	6	6	6	6	6	6	6	6	—
Shank Painters, Sheet-Anchor, cabled	12	11½	11½	11½	11	9	9	9	9	9	8½	8	7
Best Bower	8	8	8	8	8	6	6	6	6	6	5½	5	4
Small Bower	8	8	8	8	8	6	6	6	6	6	5½	5	4
Spare, cabled	12	11½	11½	11½	11	9	9	9	9	9	8½	8	7
Seizing	18	18	18	18	18	17	16	16	16	16	14	10	9
Ropes, Buoy, Sheet-Anchor, cabled	24	24	24	24	24	24	24	24	24	24	24	24	20
Best Bower, cabled	24	24	24	24	24	24	24	24	24	24	24	24	20
Small Bower, cabled	24	24	24	24	24	24	24	24	24	24	24	24	20
Seizing	18	18	18	18	18	18	17	17	17	16	16	16	—
Stream-Anchor, cabled	38	30	30	30	30	30	30	30	30	30	30	30	24
Kedge, cabled	30	30	30	30	30	30	30	30	30	30	30	30	24

LENGTH OF THE NECESSARY ROPES FOR A SHIP OF EACH CLASS.

NAMES.	110 to 100 Guns.	98 to 90 Guns.	80 Guns.	74 Guns.	64 Guns.	50 to 44 Guns.	38 Guns.	36 Guns.	32 Guns.	28 Guns.	24 Guns.	22 to 20 Guns.	16 to 20 Guns.
	FATHOMS IN LENGTH.												
Ropes, Davit, worn	12	12	12	12	12	10	8	8	8	8	7½	7	6½
Bell	4	4	3	3	3	2	2	2	2	2	2	2	1½
Bucket . . . . Coil of Lashing,	No. 1	1	1	1	1	Fa. 80	70	70	65	60	57	54	50
Swab, worn	36	36	36	30	28	24	20	20	19	18	17½	17	16
Entering	30	30	30	30	30	20	18	18	18	18	17½	17	12
Passing	60	60	60	60	58	50	50	50	—	—	—	—	—
Laniard	12	12	12	12	12	11	11	11	—	—	—	—	—
Slip	40	40	40	40	40	30	30	30	—	—	—	—	—
Quarter, Poop, and Waist	150	150	150	150	144	130	100	100	98	96	93	90	80
Fore, Main, and Mizen, Tops, Coil of Lashing, No.	1	1	1	1	1	1	1	1	1	1	1	1	0½
Wheel or Tiller, white	30	30	30	30	28	24	23	23	23	23	22½	22	20
Strapping	1½	1½	1½	1½	1½	1½	1½	1½	1½	1½	1½	1½	1½
Seizing	6	6	6	6	6	6	—	—	—	—	—	—	—
Puddening of Anchors, worn	130	130	130	130	128	100	100	100	100	90	80	70	60
	40	40	40	40	40	30	30	30	30	26	25	25	20
Seizings	95	96	96	96	96	80	70	70	70	70	60	50	46
Slings, Buoy, 4 pair	56	56	56	56	52	48	48	48	48	48	46	44	40
Laniards	15	15	15	15	15	12	12	12	12	10	9	9	6
Seizings	42	42	42	42	42	No. 2	Ta 2 rr	ed 2 Li	nes 2	2	2	2	1½
Gun	7	7	7	7	7	6½	6½	6½	6½	6	6	6	4
Nut	4	4	4	4	4	4	3½	3½	3½	3½	3½	3½	3
Butt	20	20	20	20	20	20	20	20	20	15	15	15	10
Hogshead	16	16	16	16	16	16	16	16	16	12	12	12	12
Can-hook	6	6	6	6	6	6	6	6	6	6	6	6	6

Straps for Wood Buoys, worn	6	6	6	6	6	5	5	5	5	5	5	5	5
Swabs, worn	24	24	24	24	24	20	16	16	16	15	15	15	12
Cable-Bends	64	64	64	64	64	62	60	60	60	54	52	51	36
Rudder-Pendents, cabled	11	11	11	11	10	8½	8½	8½	8	8	8	8	8
Laniards	10	10	10	10	10	—	—	—	—	—	—	—	—
Falls	50	50	50	50	46	42	42	42	—	—	—	—	—
Strapping	5	5	5	5	5	5	5	5	—	—	—	—	—
Seizing	12	12	12	12	12	12	12	12	—	—	—	—	—
Stern-Ladders, four strands	34	34	32	28	28	22	18	18	18	18	17½	17	12
Middle Rope	24	24	23	22	20	15	14	14	14	14	13½	13	9
Lashing	12	12	12	12	9	9	9	9	9	9	8½	8	6
Futtock-Staves	7	7	7	7	7	6	6	6	6	6	6	6	5½
	2	2	2	2	2	2	2	2	2	2	2	2	2
Swifters for Capstan-Bars	60	60	60	60	60	55	55	55	54	52	51	50	40
Lashing-Cables between Decks, Sheep-Pens, Steep Tubs, Tubs in the Tops, and Booms } Coils of Lashing, No.	5	5	5	5	4½	3	2½	2½	2½	2	2	2	1½
Nettings for the Quarter, Waist, Tops, and Barricadoes	1000	950	900	950	900	650	660	650	570	550	500	450	380
Haliards for the Top Lantern	30	30	28	32	28	28	—	—	—	—	—	—	—
Ensign	36	36	36	36	36	30	30	30	30	30	29	28	12
Jack	26	12	12	12	12	10	10	10	10	10	10	10	8
Head-Line . . . White Lines, No.	4	4	4	4	4	2	2	2	2	2	1½	1½	1
For Colours { Ropebands . . . . . Marline, lbs.	6	6	6	6	6	4	4	4	4	3½	3	3	2
For Colours { Pendent-Slings	30	30	30	30	28	24	22	22	22	22	21	20	18
Awning-Ridge and Side-Ropes	130	130	128	130	128	120	108	108	108	100	98	95	90
Stops	40	40	40	40	38	30	30	30	30	28	24	24	16
Crowfoot	160	160	100	160	150	130	120	120	120	110	110	100	75
Haliard	40	40	38	40	38	36	36	36	36	34	33	32	28
Ridge Tackle-Fall	10	10	10	10	10	10	10	10	10	10	10	10	9
Strapping	8	8	8	8	8	8	8	8	8	7½	7½	7	5
Seizing	30	30	30	30	28	28	26	26	26	25	—	—	—

LENGTH

OF

BOATS' RIGGING

BELONGING TO

SHIPS OF EACH CLASS.

NAMES.	110to100 Guns.	98 to 90 Guns.	80 Guns.	74 Guns.	64 Guns.	30 to 44 Guns.	38 Guns.	36 Guns.	32 Guns.	28 Guns.	24 Guns.	22 to 20 Guns.	18 to 14 Guns.
RIGGING FOR LONG-BOATS.	FATHOMS IN LENGTH.												
Burton-Pendents	3½	3½	3½	3½	3	3	3	3	3	3	3	3	—
Runner	12	12	12	12	12	11	10	10	10	10	10	10	—
Falls	20	20	20	20	20	18	14	14	14	14	14	14	—
Strapping	3	3	3	3	3	2½	2½	2½	2½	2	2	2	—
Shrouds	22	22	22	22	21	18	16	16	16	14	13½	13	—
Lanards	8	8	8	8	8	8	8	8	8	7	6	6	—
Stay	7	7	7	7	7	5	5	5	5	5	5	5	4
Laniard	2½	2½	2½	2½	2½	2	2	2	2	2	2	2	—
Tye	7	7	7	7	7	7	—	—	—	—	—	—	—
Main Halard	18	18	18	18	18	16	15	15	15	14	13½	13	9
Outer Haliard	20	20	20	20	20	18	17	17	17	17	16½	16	—
Sheet	15	15	15	15	15	11	10	10	10	10	9½	9	6
Downhauler	15	15	15	15	15	14	13	13	13	12	11	10	—
Strapping	8	8	8	8	8	7	7	7	7	6	6	5	—

Topping Lift	15	15	15	15	15	14	14	14	14	13	12½	12	—
Fore Haliard	16	16	16	16	14	12	12	12	12	11	10½	10	—
Sheet	5	5	5	5	5	4¼	4	4	4	4	4	4	—
Tack	1	1	1	1	1	1	1	1	1	1	1	1	—
Bowline	1½	1½	1½	1½	1½	1½	1½	1½	1½	1½	1	1	—
Jib Haliards	22	22	22	22	21	12	12	12	12	11	10½	10	—
Sheet	10	10	10	10	10	8	8	8	8	8	8	8	—
Outhauler	10	10	10	10	10	9	9	9	9	9	8½	8	7
Inhauler	7	7	7	7	7	6	6	6	6	5	5	5	—
Boat-Rope, cabled	40	40	40	40	36	30	30	30	30	30	30	30	—
Laniard	4	4	4	4	3	3	2	2	2	2	2	2	—
Guest Rope, cabled	40	40	40	40	36	30	30	30	30	30	30	28	—
Grapnel-Rope, cabled	50	50	50	50	50	45	45	45	45	45	45	40	35
Painter	7	7	7	7	7	7	6	6	6	6	6	6	6
Sternfast	12	12	12	12	12	12	12	12	12	12	10	10	8
Fenders, cabled, worn	14	14	14	14	14	12	10	10	10	10	9½	9	8
Laniards	12	12	12	12	10	10	10	10	10	10	9½	9	8
Rudder-Laniards	2½	2½	2½	2½	2½	2	2	2	2	1½	1½	1½	1
PINNACE.													
Haliards, Main and Fore	20	20	20	20	20	10	10	10	10	10	10	10	10
Sheets	20	20	20	20	20	10	10	10	10	10	10	10	10
Grapnel-Rope, cabled	70	70	70	70	70	35	35	35	35	35	35	35	35
Painter	10	10	10	10	10	5	5	5	5	5	5	5	5
Sternfast	20	10	10	10	10	5	5	5	5	5	5	5	5
Slings	10	10	10	10	10	5	5	5	5	5	5	5	5
Seizings	20	20	20	20	20	10	10	10	10	10	10	10	10
Rudder-Laniards	4	4	4	4	4	1	1	1	1	1	1	1	1

LENGTH OF BOATS' RIGGING BELONGING TO SHIPS OF EACH CLASS.

NAMES.	110 to 100 Guns.	98 to 90 Guns.	80 Guns.	74 Guns.	64 Guns.	50 to 44 Guns.	38 Guns.	36 Guns.	32 Guns.	28 Guns.	24 Guns.	22 to 20 Guns.	18 to 14 Guns.
YAWL, OR CUTTER.	FATHOMS IN LENGTH.												
Haliards (if Cutters)	12	12	12	12	12	12	6	6	6	6	6	6	10
Sheets	8	8	8	8	8	8	4	4	4	4	4	4	10
	8	8	8	8	8	8	4	4	4	4	4	4	
Grapnel-Rope, cabled	80	80	80	80	80	80	40	40	40	40	40	40	35
Painter	10	10	10	10	10	10	5	5	5	5	5	5	5
Sternfast	—	—	—	—	—	—	—	—	—	—	—	—	5
Slings	10	10	10	10	10	10	5	5	5	5	5	5	5
Seizings	20	20	20	20	20	20	10	10	10	10	10	10	10
Rudder-Laniards	4	4	4	4	4	2	1	1	1	1	1	1	1

A TABLE

OF THE

DIMENSIONS

OF THE

STANDING AND RUNNING RIGGING:

WITH THE

SPECIES, SIZE, AND NUMBER

OF

BLOCKS, HEARTS, DEAD-EYES, *&c.*

EXPLANATION OF THE ABBREVIATIONS IN THE FOLLOWING TABLES.

Br. sh.	Brass sheaves.
D.	Double block.
D. c.	Double block, coaked.
D. th. c.	Double thin block, coaked.
D. E.	Dead-Eyes.
Eu.	Euphroe.
Fl. si.	Flat-sided block.
H.	Hearts.
I. bd.	Iron-bound.
I. Tra.	Iron Trave.
L. t.	Long tackle-block.
Par.	Parral.
Pl. d. e.	Plates with dead-eyes.
Q.	Quarter block.
S.	Single block.
S. c.	Single block, coaked,
S. h.	Single hook-block.
S. do. c.	Single block, double scored.
S. st. bd.	Single strap-bound block.
S. th. c.	Single thin block, coaked.
S. br. sh.	Single block with brass sheave.
Sho.	Shouldered block.
Sis.	Sister-block.
Sn.	Snatch-block.
St. bd.	Strap-bound block.
T.	Thimbles.
Th. c.	Thin block, coaked.
Thk. & th.	Thick-and-thin block.
Tr.	Treble block.
Tr. c.	Treble block, coaked.
*	This mark denotes that the block or heart has a hook and thimble.

A TABLE

OF THE

DIMENSIONS OF THE STANDING AND RUNNING RIGGING:

WITH THE

SPECIES, SIZE, AND NUMBER, OF BLOCKS, HEARTS, DEAD-EYES, *&c.*

Names of the standing and running Rigging.	Ships from 110 to 74 Guns, or from 2000 to 1800 Tons				Ships of 64 Guns, or from 1700 to 1300 Tons.				Ships from 50 to 36 Guns or from 1200 to 800 Tons.				Ships from 32 to 28 Guns, or from 700 to 600 Tons.				Ships of 24 Guns, or from 550 to 450 Tons.				Ships from 22 to 20 Guns, or from 400 to 350 Tons.				Ships from 18 to 14 Guns, or from 300 to 250 Tons.			
		Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks. &c.				Blocks, &c.		
	Inches.	Species.	Inches.	Number.	Inches.	Species.	Inches.	Number.	Inches.	Species.	Inches.	Number.	Inches.	Species.	Inches.	Number.	Inches.	Species.	Inches.	Number.	Inches.	Species.	Inches.	Number.	Inches.	Species.	Inches.	Number.
BOWSPRIT.																												
Woolding . . .	3½	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—
Gammoning . . .	8	—	—	—	7	—	—	—	6	—	—	—	5½	—	—	—	5½	—	—	—	5	—	—	—	4½	—	—	—
Shrouds	8	*H.	14	4	7½	*H.	13	4	6	*H.	9	2	6	*H.	9	2	5½	*H.	8	2	5	*H.	7	2	4½	*H.	6	2
Collars	6½	H.	14	4	6	H.	13	4	5	H.	9	2	5	H.	9	2	4½	H.	8	2	4	H.	7	2	3½	H.	6	2
Seizing . . .	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¼	—	—	—
Lashing . . .	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—
Laniard . . .	3½	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—
Bobstays cabled .	8	H.	14	3	8	H.	13	3	7	H.	9	2	7	H.	9	2	6½	H.	8	2	6	H.	7	2	5	H.	6	2
Collars	8½	H.	14	3	8	H.	13	3	7	H.	9	2	7	H.	9	2	6½	H.	8	2	6	H.	7	2	5	H.	6	2
Seizing . . .	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¼	—	—	—
Lashing . . .	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—
Laniards . . .	4	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—
Horses	5	T.	—	6	4	T.	—	6	3½	T.	—	6	3	T.	—	6	3	T.	—	6	3	T.	—	6	3	T.	—	6
Straps	3½	—	—	4	3	—	—	4	3	—	—	4	2½	—	—	4	2½	—	—	4	2½	—	—	4	2	—	—	4
Lanards . . .	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—

SPRITSAIL-YARD.																												
Horses	4	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—
Stirrups	3	T.	—	6	3	T.	—	6	2½	T.	—	6	2½	T.	—	6	2½	T.	—	6	2½	T.	—	6	2	T.	—	4
Braces	3½	D.	12	4	3	D.	11	4	2½	D.	9	4	2½	D.	9	4	2½	D.	9	4	2	D.	9	4	2½	D.	9	4
Pendents	4	S.	12	4	3½	S.	11	4	3	S.	9	4	3	S.	9	4	3	S.	9	4	3	S.	9	4	—	S.	9	4
Strapping	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—
Lifts	3½	S.	12	4	3	S.	11	4	2½	S.	9	4	2½	S.	9	4	2½	S.	9	4	2½	S.	9	4	2	S.	7	4
Beckets	3½	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—
Strapping	4	—	—	—	3½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—
Seizing	¾	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Standing	4½	T.	—	4	4	T.	—	4	3	T.	—	4	3	T.	—	4	3	T.	—	4	3	T.	—	4	2½	T.	—	4
Straps	4½	—	—	—	4	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2	—	—	—
Laniards	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	¾	—	—	—
Haliard	3½	*L. t. S.	24 12	1 1	3	*L. t. S.	22 11	1 1	2½	*L. t. S.	18 9	1 1	2½	*L. t. S.	18 9	1 1	2½	*L. t. S.	18 9	1 1	2½	*L. t. S.	18 9	1 1	2	S.	7	2
Strapping	4½	—	—	—	4	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—
Seizing & Lashing	¾	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Slings	6½	—	—	—	5	—	—	—	4½	—	—	—	4½	—	—	—	4	—	—	—	4	—	—	—	3½	—	—	—
Seizing & Racking	1½	—	—	—	1½	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Clue Lines	2½	St. bd. S.	10 10	4 2	2½	St. bd. S.	9 9	4 2	2	St. bd. S.	8 8	4 2	2	St. bd. S.	8 8	4 2	2	St. bd. S.	8 8	4 2	2	St. bd. S.	8 8	4 2	1½	St. bd.	6	2
Strapping	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—	1½	—	—	—
Bunt-lines	2	S.	8	2	2	S.	8	2	2	S.	8	2	2	S.	8	2	1½	S.	6	2	1½	S.	6	2	1	—	—	—
Strapping	2½	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—
Ear-rings	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—
Sheets cabled	5	—	—	—	4½	—	—	—	3½	—	—	—	3½	—	—	—	3½	—	—	—	3½	—	—	—	3	—	—	—
JIB.																												
Horses	4	—	—	—	3½	—	—	—	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—
Seizings	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guy-pendents	4½	S.	13	2	4	S.	13	2	3½	S.	11	2	3½	S.	11	2	3½	S.	11	2	3	S.	11	2	2½	S.	10	2
Falls	3	S.	11	4	2½	S.	9	4	2½	S.	9	4	2½	S.	9	4	2½	S.	9	4	2½	S.	9	4	1½	S.	8	4
Strapping	4 3	— —	— —	— —	4 2½	— —	— —	— —	3½ 2½	— —	— —	— —	3½ 2½	— —	— —	— —	3½ 2½	— —	— —	— —	3	—	—	—	2½	—	—	—
Lashers	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—

TABLE OF THE DIMENSIONS OF RIGGING, WITH THE SPECIES, SIZE, AND NUMBER, OF BLOCKS, &c. CONTINUED.

Names of the standing and running Rigging.	110 to 74 Guns.				64 Guns.				50 to 36 Guns.				32 to 28 Guns.				24 Guns.				22 to 20 Guns.				18 to 14 Guns.			
		Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.		
	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N
Out Hauler	4	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—
Tackle Fall	3½	S.	9	2	2	S.	8	2	2	S.	7	2	2	S.	7	2	2	S.	7	2	2	S.	7	2	—	—	—	—
Strapping	2½	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	—	—	—	—
Stay	4½	S.	14	1	4	S.	13	1	3½	S.	11	1	3½	S.	11	1	3	S.	10	1	3	S.	10	1	3	S.	9	1
Strapping	4½	—	—	—	4	—	—	—	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—
Tackle-Fall	2½	D.	9	1	2½	D.	9	1	2	D.	7	1	2	D.	7	1	2	S.	7	2	2	S.	7	2	1½	S.	6	2
		S.	9	1		S.	9	1		S.	7	1		S.	7	1												
Strapping	2½	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—
Haliard	4	S.	13	1	3½	S.	12	1	3	S.	10	1	3	S.	10	1	2½	S.	9	1	2½	S.	9	1	2½	S.	9	1
Strapping	4	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—
Down-Hauler	2½	S.	9	1	2½	S.	9	1	2	S.	7	1	2	S.	7	1	1½	S.	6	1	1½	S.	6	1	1½	S.	6	1
Sheets, single	3½	S.	11	2	3	S.	11	2	3½	S.	10	2	3½	S.	10	2	3	S.	10	2	2½	S.	9	2	2½	S.	9	2
Pendents	4½	S.	11	2	4	S.	11	2	4	S.	11	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Flying-Jib.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Haliard	2½	S.	8	1	2½	S.	7	1	2½	S.	7	1	2	S.	7	1	2	S.	7	1	2	S.	7	1	2	S.	7	1
Sheets	2½	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—
Tack	2	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—
Down Hauler	1½	S.	5	1	1½	S.	5	1	1	S.	5	1	1	S.	5	1	1	S.	5	1	1	S.	5	1	1	S.	5	1
SPRITSAIL TOPSAIL AND YARD.																												
Horses	3	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—
Braces	2½	S.	9	2	2½	S.	9	2	2	S.	7	2	2	S.	7	2	2	S.	7	2	2	S.	7	2	1½	—	—	—
Strapping	2½	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	—	—	—	—
Lifts, single	2½	S.	9	2	2	S.	8	2	2	S.	8	2	2	T.	—	2	1½	T.	—	2	1½	T.	—	2	1½	T.	—	2
Strapping	2½	—	—	—	2	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Haliard	2½	S.	9	2	2½	S.	9	2	2	S.	7	2	2	S.	7	2	2	S.	7	2	2	S.	7	2	1½	S.	6	2

Strapping . . .	2½	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—
Lashing	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parral-Ropes . . .	2½	Par.	12	1	2	Par.	12	1	2	Par.	10	1	2	Par.	10	1	1½	Par.	8	1	1½	Par.	8	1	1½	Par.	8	1
Clue-lines . . .	2	S.	7	4	2	S.	7	4	1½	S.	6	4	1½	S.	6	4	1½	S.	6	4	1½	S.	6	2	1½	S.	6	2
Strapping . . .	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—
Lacing & Ear-rings .	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
FORE-MAST.																												
Woolding . . .	3½	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—
Girtlines	5	S.	16	2	4	S.	15	2	3½	S.	13	2	3	S.	12	2	3	S.	11	2	3	S.	10	2	2½	S.	9	2
Strapping . . .	5	—	—	—	4	—	—	—	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—
Seizing	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lashing	2½	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	¾	—	—	—
Pendts. of Tackles cabled . . .	11	*S. c.	24	2	10½	*S. c.	22	2	8½	*S. c.	17	2	8	*S. c.	17	2	7½	*S.c.	15	2	7½	*S.c.	15	2	7	*S.c.	15	2
Strapping . .	7½	T.	—	8	6½	T.	—	8	5½	T.	—	8	5½	T.	—	4	5	T.	—	4	5	T.	—	4	4½	T.	—	4
Seizing . .	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Runners of Tackles .	7½	D. th. c.	21	4	6½	D. th. c.	21	4	5½	D. th. c.	17	4	5½	D. th. c.	16	2	5	—	—	—	4½	—	—	—	4	—	—	—
Strapping . .	6	—	—	—	5½	—	—	—	5	—	—	—	5	—	—	—	4	—	—	—	4	—	—	—	3½	—	—	—
Falls of Tackles .	4	*S.th. c.	26	4	4	S. th. c.	24	4	3	*S.th. c.	18	4	3	*S. th.c.	17	2	3	*S. th.c.	15 11	2 2	3	*S. th. c.	15 11	2 2	2½	*S. th.c.	13 9	2 2
Strapping . .	5½	T.	—	2	5½	T.	—	2	5	T.	—	2	5	T.	—	—	4	T.	—	—	4	T.	—	—	3½	T.	—	—
Seizing . .	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Shrouds	11	D.E.	17	20	10½	D.E.	16	18	8½	D.E.	13	14	8	D.E.	13	14	7½	D.E.	11	14	7½	D.E.	11	12	7	D.E.	12	10
Seizings, Eye .	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—
Throat	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—
End .	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—
Laniard . . .	5½	—	—	—	5	—	—	—	4	—	—	—	4	—	—	—	4	—	—	—	4	—	—	—	3½	—	—	—
Ratling . . .	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—
Stay cabled 4 Strands	18	H.	26	1	16	H.	22	1	13	H.	17	1	12	H.	16	1	11	H.	14	1	11	H.	14	1	9½	H.	13	1
Seizings . . .	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—
Laniard . . .	6	—	—	—	5	—	—	—	4½	—	—	—	4	—	—	—	4	—	—	—	4	—	—	—	3½	—	—	—
Collar cabled 4 Strands double	9½	H.	26	1	8½	H.	22	1	6½	H.	17	1	6	H.	16	1	5½	H.	14	1	5½	H.	14	1	5	H.	13	1
Seizings . . .	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—

TABLE OF THE DIMENSIONS OF RIGGING, WITH THE SPECIES, SIZE, AND NUMBER, OF BLOCKS, &c. CONTINUED.

Names of the standing and running Rigging.	110 to 74 Guns.	Blocks, &c.			64 Guns.	Blocks, &c.			50 to 36 Guns.	Blocks, &c.			32 to 28 Guns.	Blocks, &c.			24 Guns.	Blocks, &c.			22 to 20 Guns.	Blocks, &c.			18 to 14 Guns.	Blocks, &c.		
	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N
Lashing	2½	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—
Preventer-Stay cabled 4 Strands	11½	H.	16	1	10½	H.	15	1	8½	H.	12	1	7½	H.	12	1	7	H.	11	1	7	H.	11	1	6	H.	10	1
Laniard	4½	—	—	—	4	—	—	—	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—
Collar cabled 4 Strands double	6½	H.	16	1	5½	H.	15	1	4½	H.	12	1	4½	H.	12	1	4	H.	11	1	4	H.	11	1	4	H.	10	1
Lashing	2½	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—
Seizing	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—
Catharpin-Legs	7	—	—	—	6½	—	—	—	5	—	—	—	5	—	—	—	4½	—	—	—	4	—	—	—	3½	—	—	—
Seizing	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—
FORE-YARD.																												
Jears † Tye	7½	Tr.c.	26	2	6½	Tr. c.	24	2	5½	D.c.	18	4	5	D.c.	18	4	7½	S.do.sc.	20	3	7½	S.do.sc.	20	3	7	S.do.sc.	20	3
Falls		D. c.	26	2		D. c.	24	2									3	D.c.	12	4	3	D. c.	12	4	2½	D.c.	12	4
																		S.c.	9	2		S.c.	9	2		S.c.	9	2
Strapping	8½	—	—	—	8	—	—	—	6½	—	—	—	6	—	—	—	5½ 4 3	—	—	—	5½ 4 3	—	—	—	5 4 2½	—	—	—
Seizings	2	—	—	—	2	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—
Lashing MastHead	4½	—	—	—	4	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—
at the Yard	3½	—	—	—	3	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—
Stoppers	6	—	—	—	5½	—	—	—	4½	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Horses	5½	—	—	—	5	—	—	—	4½	—	—	—	4	—	—	—	4	—	—	—	4	—	—	—	3½	—	—	—
Stirrups	4	T.	—	12	4	T.	—	10	3	T.	—	10	3	T.	—	8	3	T.	—	8	3	T.	—	8	2½	T.	—	8
Seizings	¾	—	—	—	¾	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Laniard	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—
Yard-Tackle Pendts.	7	D.th.c.	17	2	6½	D.th.c.	16	2	5½	D.th.c.	14	2	5½	D.th.c.	14	2	5	D.th.c.	12	2	5	D.th.c.	12	2	4½	D.th.c.	11	2

† Ships of 28 Guns have their jears similar to 24 Gun-ships.

Falls	3½	*D. S.	20 13	2 2	3½	*D. S.	18 13	2 2	3	*D. S.	16 11	2 2	3	*D. S.	16 11	2 2	3	*D. S.	15 11	2 2	3	*D. S.	14 10	2 2	2½	*D. S.	13 9	3 2
Strapping	5½	——	—	—	5	——	—	—	4	——	—	—	4	——	—	—	3½	——	—	—	3½	——	—	—	3	——	—	—
Seizing	1	——	—	—	1	——	—	—	¾	——	—	—	¾	——	—	—	¾	——	—	—	¾	——	—	—	—	——	—	—
Inner Tricing-Lines	2½	S.	8	2	2	S.	7	2	2	S.	7	2	2	S.	7	2	1½	S.	6	2	1½	S.	6	2	1½	S.	6	2
Outer Tricing-Lines	2	S.	7	4	2	S.	7	4	1½	S.	6	4	1½	S.	6	4	1½	S.	6	4	1½	S.	6	4	1½	S.	6	2
Strapping	2	——	—	—	2	——	—	—	2	——	—	—	2	——	—	—	1½	——	—	—	1½	——	—	—	1½	——	—	—
Braces	4½	S. c.	16	4	4	S. c.	15	4	3½	S. c.	12	4	3½	S. c.	12	4	3	S. c.	10	4	3	S. c.	10	4	2½	S. c.	9	4
Pendents	5½	S. c.	16	2	5	S. c.	15	2	4½	S. c.	12	2	4½	S. c.	12	2	4	S. c.	10	2	4	S. c.	10	2	3½	S. c.	9	2
Preventer	4½	——	—	—	4	——	—	—	3½	——	—	—	3½	——	—	—	3	——	—	—	3	——	—	—	2½	——	—	—
Strapping	5	——	—	—	4½	——	—	—	4	——	—	—	4	——	—	—	3	——	—	—	3	——	—	—	2½	——	—	—
Seizing	¾	——	—	—	¾	——	—	—	¾	——	—	—	—	——	—	—	—	——	—	—	—	——	—	—	—	——	—	—
Lashing	1½	——	—	—	1½	——	—	—	1½	——	—	—	1½	——	—	—	¾	——	—	—	¾	——	—	—	¾	——	—	—
Preventers (in war only)	3½	S.	13	4	3½	S.	13	4	3	S.	11	4	3	S.	11	4	2½	S.	9	4	2½	S.	9	4	2	S.	8	4
Strapping	3½	——	—	—	3½	——	—	—	3	——	—	—	3	——	—	—	2½	——	—	—	2½	——	—	—	2	——	—	—
Seizing	¾	——	—	—	¾	——	—	—	¾	——	—	—	—	——	—	—	—	——	—	—	—	——	—	—	—	——	—	—
Lifts	4½	S.	16	6	4	S.	15	6	3½	S.	12	6	3½	S.	12	6	3½	S.	11	6	3	S.	10	6	3	S.	9	6
Span for the Cap	6½	Sis.	24	2	5½	Sis.	22	2	4½	Sis.	20	2	4½	Sis.	20	2	4½	Sis.	18	2	4	Sis.	16	2	4	Sis.	14	2
Short Span	4½	——	—	—	4	——	—	—	3½	——	—	—	3½	——	—	—	3½	——	—	—	3	——	—	—	3	——	—	—
Strapping	5	——	—	—	4½	——	—	—	4	——	—	—	4	——	—	—	3½	——	—	—	3	——	—	—	3	——	—	—
Seizing	¾	——	—	—	¾	——	—	—	¾	——	—	—	¾	——	—	—	—	——	—	—	—	——	—	—	—	——	—	—
Jigger-Tackle	2½	D. S.	10 10	2 2	2½	D. S.	9 9	2 2	2	D. S.	8 8	2 2	2	D. S.	8 8	2 2	2	D. S.	8 8	2 2	2	D. S.	8 8	2 2	—	——	—	—
Strapping	3½	——	—	—	3½	——	—	—	3	——	—	—	3	——	—	—	3	——	—	—	3	——	—	—	—	——	—	—
Truss-Pendents	8	T.	—	4	7½	T.	—	4	6	T.	—	4	5½	T.	—	4	5	T.	—	4	5	T.	—	4	4½	T.	—	4
Falls	3	*D.	11	4	3	*D.	11	4	2½	*D.	9	4	2½	*D.	9	4	2	*D.	8	4	2	*D.	8	4	2	*D.	8	4
Strapping	3½	——	—	—	3½	——	—	—	3	——	—	—	3	——	—	—	2½	——	—	—	2½	——	—	—	2½	——	—	—
Eye-Seizings	1½	——	—	—	1½	——	—	—	1	——	—	—	1	——	—	—	¾	——	—	—	¾	——	—	—	¾	——	—	—
Nave-Line	2	S.	7	1	2	S.	7	1	1½	S.	6	1	1½	S.	6	1	1½	S.	6	1	1½	S.	6	1	—	S.	—	—
Puddening the Yard	6½	——	—	—	6	——	—	—	6	——	—	—	6	——	—	—	5	——	—	—	5	——	—	—	5	——	—	—
Clue-Garnets	4	S.St. bd. S.	15 15	4 2	3½	S.St. bd. S.	13 13	4 2	3	S.St. bd. S.	11 11	4 2	3	S. St.bd. S.	11 11	4 2	2½	S. St.bd. S.	9 9	4 2	2½	S. St.bd. S.	9 9	4 2	2½	S. St.bd. S.	9 9	4 2
Straps ab. the Yard	4	——	—	—	3½	——	—	—	3	——	—	—	3	——	—	—	2½	——	—	—	2½	——	—	—	2½	——	—	—
Strapping	4	——	—	—	3½	——	—	—	3	——	—	—	3	——	—	—	2½	——	—	—	2½	——	—	—	2½	——	—	—

TABLE OF THE DIMENSIONS OF RIGGING, WITH THE SPECIES, SIZE, AND NUMBER, OF BLOCKS, *&c.* CONTINUED.

Names of the standing and running Rigging.	110 to 74 Guns.				64 Guns.				50 to 36 Guns.				32 to 28 Guns.				24 Guns.				22 to 20 Guns.				18 to 14 Guns.			
		Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.		
	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N
Seizing	¾	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lashing	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—
Buntline-Legs	3	D.	11	4	3	D.	10	4	2½	D.	8	4	2½	D.	8	4	2	D.	8	4	2	D.	8	4	2	D.	8	4
Falls	3	S.	10	8	3	S.	10	8	2½	S.	8	8	2½	S.	8	8	2	S.	8	8	2	S.	8	8	2	S.	8	8
Strapping	3½	—	—	—	3½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—
Leechline-Legs	2½	D.	11	4	2½	D.	10	4	2	D.	7	4	2	D.	7	4	2	D.	7	4	2	D.	7	4	2	D.	7	4
Falls	2½	S.	10	8	2½	S.	10	8	2	S.	7	8	2	S.	7	8	2	S.	7	8	2	S.	7	4	2	S.	7	4
Strapping	3½	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—
Slablines	2½	S.	9	2	2	S.	8	2	2	S.	7	2	2	S.	7	2	1½	S.	6	2	1½	S.	6	2	1½	S.	6	2
Strapping	2½	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—
Bowlines	4½	S.	16	4	4	S.	15	4	3½	S.	13	4	3½	S.	13	4	3	S.	12	2	3	S.	12	2	3	S.	11	2
Bridles	4½	T.	—	2	4	T.	—	2	3½	T.	—	2	3½	T.	—	2	3	T.	—	2	3	T.	—	2	3	T.	—	2
Strapping	4½	—	—	—	4	—	—	—	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—
Seizing	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—
Lashing	2½	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—
Ear-rings	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—
Sheets cab'led	7	S. c.	24	2	6	S. c.	22	2	5	S. c.	17	2	5	S. c.	17	2	5	S. c.	16	2	4½	S. c.	15	2	4	S. c.	14	2
Strapping	7½	T.	—	2	6	T.	—	2	5	T.	—	2	5	T.	—	2	5	T.	—	2	4½	T.	—	2	4	T.	—	2
Seizing	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Stoppers	5½	—	—	—	5	—	—	—	4	—	—	—	4	—	—	—	4	—	—	—	3½	—	—	—	3	—	—	—
Tacks taper & cabled	9½	Sho.	26	2	8	Sho.	20	2	6½	Sho.	16	2	6½	Sho.	16	2	5½	Sho.	14	2	5½	Sho.	14	2	5	Sho.	14	2
Strapping	6½	—	—	—	6	—	—	—	5	—	—	—	5	—	—	—	4½	—	—	—	4½	—	—	—	4	—	—	—
Seizing	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Stoppers	6	H. & T.	2	2	5½	H. & T.	2	2	5	H. & T.	2	2	5	H. & T.	2	2	4	H. & T.	2	2	4	H. & T.	2	2	—	—	—	—
Lanyards	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	—	—	—	—
Gammoning Bumkin	4½	H. & T.	2	6	4	H. & T.	2	6	3½	H. & T.	2	6	3½	H. & T.	2	6	3	H. & T.	2	6	3	H. & T.	2	6	2½	H. & T.	2	6

Laniards . .	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—
Lnrds. for Pud. & Dol.	1½	T.	—	4	1½	T.	—	4	1	T.	—	4	1	T.	—	4	1	T.	—	4	1	T.	—	4	¾	T.	—	4
Slings	12	T.	—	1	11	T.	—	—	9	T.	—	—	8½	T.	—	—	—	T.	—	—	—	T.	—	—	—	T.	—	—
Strap . . .	12	T.	—	1	11	T.	—	1	9	T.	—	1	8½	T.	—	1	—	T.	—	—	—	T.	—	—	—	T.	—	—
Seizings . .	2	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Laniard . .	3½	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Staysail Haliard .	4	S.	13	2	3½	S.	12	2	3	S.	10	2	3	S.	10	2	2½	S.	9	2	2½	S.	9	2	2	S.	8	2
Sheets . . .	4	S.	13	2	4	S.	12	2	3	S.	10	2	3	S.	10	2	2½	S.	9	2	2½	S.	9	2	2½	S.	8	2
Tack . . .	3½	—	—	—	3	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—
Downhauler	2½	S.	9	1	2	S.	8	1	2	S.	7	1	2	S.	7	1	1½	S.	6	1	1½	S.	6	1	1½	S.	6	1
Strapping	4	—	—	—	4	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—
	2½	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—		—	—	—		—	—	—		—	—	—
Studdsl. Hal. Inner	3	S.	12	6	3	S.	11	6	2	S.	9	6	2	S.	9	6	2	S.	9	6	2	S.	9	6	2	S.	9	6
Outer	3½	S.	12	4	3½	S.	11	4	2½	S.	9	4	2½	S.	9	4	2½	S.	9	4	2½	S.	9	4	2½	S.	9	4
Sheets . . .	3	—	—	—	3	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—
Tacks . . .	3½	S.	12	2	3½	S.	11	2	3	S.	10	2	2½	S.	9	2	2½	S.	9	2	2½	S.	9	2	2½	S.	9	2
Strapping . .	3½	—	—	—	3½	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—
FORE-TOPMAST.																												
Burton-Pendents .	5½	T.	—	2	5	T.	—	2	4½	T.	—	2	4	T.	—	2	4	T.	—	2	3½	T.	—	2	3	T.	—	2
Falls . . .	2½	*D.	11	2	2½	*D.	10	2	2½	*D.	9	2	2	*D.	9	2	2	*D.	8	2	2	*D.	8	2	1½	*D.	6	2
		*S.	11	2		*S.	10	2		*S.	9	2		*S.	9	2		*S.	8	2		*S.	8	2		*S.	6	2
Strapping . .	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—
Shrouds	7	D.E.	11	12	6½	D.E.	10	12	5½	D.E.	8	8	5½	D.E.	8	8	5	D.E.	8	8	4½	—	7	8	4½	—	7	8
Seizings. Eye .	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—		Tarred	Li	ne	—	—	—	—
Throat	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—					—	—	—	—
End .	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	Ta	rred Li	ne	—	—	—	—	—	—	—	—	—
Laniard . . .	3½	—	—	—	3½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—
Ratline . . .	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—
Standing Backstays	7	D.E.	11	6	6½	D.E.	10	4	5½	D.E.	8	4	5½	D.E.	8	4	5	D.E.	8	4	4½	D.E.	7	4	4½	D.E.	7	2
Seizings. Eye .	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	½				½				½			
Throat	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	Tarr'd	Li	ne	¼	Tarr'd	Li	ne	½	Tarr'd	Li	ne
End .	¾	—	—	—	5/4	—	—	—	¾	—	—	—	¾	—	—	—	¾				½				½			
Laniards . . .	3½	—	—	—	3½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—
Breast Bcksty. Runn.	5	S.	14	2	4	S.	12	2	3	S.	11	2	3½	S.	11	2	3½	S.	11	2	3	S.	10	2	3	S.	9	2

d

TABLE OF THE DIMENSIONS OF RIGGING, WITH THE SPECIES, SIZE, AND NUMBER, OF BLOCKS, *&c.* CONTINUED.

Names of the standing and running Rigging.	110 to 74 Guns.				64 Guns.				50 to 36 Guns.				32 to 28 Guns.				24 Guns.				22 to 20 Guns.				18 to 14 Guns.			
		Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.		
	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N
Falls . . .	2½	D.	10	4	2½	D.	10	4	2½	D.	10	4	2½	D.	10	4	2	D.	8	4	2	D.	7	2	2	D.	7	2
																						S.	7	2		S.	7	2
Strapping . .	3	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—
Stay cabled 4Strands	8½	—	—	—	7½	—	—	—	6	—	—	—	5½	—	—	—	5½	—	—	—	5	—	—	—	5	—	—	—
Collar . . .	6½	S.	20	1	6	S.	18	1	5	S.	15	1	5	S.	15	1	5	S.	15	1	4½	S.	14	1	4	S.	13	1
Tackle . .	3½	L. t.	24	1	3	L..t.	20	1	2½	L.t.	18	1	2½	L.t.	18	1	2½	L.t.	18	1	2½	L. t.	16	1	2½	L. t.	15	1
		S.	14	1		S.	12	1		S.	10	1		S.	9	1		S.	9	1		S.	8	1		S.	8	1
Strapping . .	5	—	—	—	4	—	—	—	3½	—	—	—	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—
Seizing . .	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
	¾	—	—	—	½	—	—	—	¾	—	—	—	¾	—	—	—		—	—	—		—	—	—		—	—	—
Preventer-Stay cabled 4 Strands	6½	—	—	—	5½	—	—	—	4½	—	—	—	4	—	—	—	4	—	—	—	4	—	—	—	4	—	—	—
Collar . . .	5	S.	16	1	5	S.	15	1	4	S.	12	1	4	S.	12	1	4	S.	12	1	3½	S.	11	1	3	S.	10	1
Tackle . .	3	L. t.	18	1	2½	L.t.	18	1	2	L..t.	16	1	2	L.t.	16	1	2	L. t.	16	1	2	L. t.	15	1	2	L. t.	14	1
		S.	12	1		S.	10	1		S.	9	1		S.	8	1		S.	8	1		S.	7	1		S.	7	1
Strapping . .	4	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—
Seizing . . .	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Lashing the Col.	2½	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—
Shifting Backstays .	7	T.	—	2	6½	T.	—	2	5½	T.	—	2	5½	T.	—	2	5	T.	—	2	4½	T.	—	2	4½	T.	—	1
Tackles . .	3	*D.	12	4	3	*D.	12	4	2½	*D.	10	4	2½	*D.	10	4	2	*D.	8	4	2	*D.	8	2	2	*D.	8	1
		*S.	12	4		*S.	12	4		*S.	10	4		*S.	10	4		*S.	8	4		*S.	8	2		*S.	8	1
Strapping . .	4	—	—	—	4	—	—	—	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—
Futtock Shrouds .	7	*Pl.d.e.	11	12	6½	*Pl.d.e.	10	12	5½	*Pl.d.e.	8	8	5½	*Pl.d.e.	8	8	5	*Pl.d.e.	8	8	4½	*Pl.d.e.	7	8	4½	*Pl.d.e.	7	8
Seizing Upper	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Seizing Lower	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	¾
Ratline . . .	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—

Top-Rope Pendents	9	S.Br.shi. I. bd. c.	26	2	8½	S.Br.shi. I. bd. c.	22	2	7	S.Br.shi. I. bd. c.	20	2	6½	S.Br.shi. I. bd. c.	18	2	6½	S·Br·shi· I. bd. c.	18	2	6	S.Br.shi. I. bd. c.	17	2	6	S.Br.shi. I. bd. c.	16	1
Falls	5	Tr.I.b.c.	24	2	4	Tr.I.b.c.	21	4	4	Tr.I.b.c.	15	4	3½	Tr.I.b.c.	15	4	3½	Tr.I.b.c.	15	4	3	Tr.I.b.c.	14	4	2	Tr.I.b.c.	14	2
FORE-TOPSAIL YD.																												
Tie	6	Fl. si. c.	20	2	5½	Fl. si. c.	18	2	4½	Fl. si. c.	16	2	4½	Fl. si. c.	16	2	4½	Fl. si. c.	15	2	4½	Fl. si. c.	15	2	4	Fl. si. c.	14	1
		D. c.	20	1		D. c.	18	1		D. c.	16	1		D. c.	16	1		D. c.	15	1		D. c.	15	1		D. c.	—	—
Strapping	6½	—	—	—	5½	—	—	—	4½	—	—	—	4½	—	—	—	4½	—	—	—	4	—	—	—	4	—	—	—
Seizing	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Lashers Mast-head	2½	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—
Lashers Yard	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—
Haliards	3½	D. th. c.	26	2	3½	D. th. c.	24	2	3	D. th. c.	19	2	3	D. th. c.	18	2	2½	D. th. c.	17	2	2½	D. th. c.	16	2	2½	D. th. c.	14	1
		*S.th.c.	26	2		*S.th.c.	24	2		*S. th. c.	19	2		*S.th.c.	18	2		*S. th.c.	17	2		*S.th.c.	16	2		*S. th.c.	14	1
Strapping	5	—	—	—	4½	—	—	—	4	—	—	—	4	—	—	—	3½	—	—	—	3½	—	—	—	3½	—	—	—
Seizing	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Horses	4	—	—	—	4	—	—	—	3½	—	—	—	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—
Stirrups	3	T.	—	6	3	T.	—	6	3	T.	—	6	3	T.	—	6	2½	T.	—	6	2	T.	—	4	2	T.	—	4
Braces	3½	S.	14	4	3½	S.	12	4	3	S.	10	4	3	S.	10	4	2½	S.	9	4	2½	S.	9	4	2	S.	8	4
Pendents	4½	S.	14	2	4½	S.	12	2	3½	S.	10	2	3½	S.	10	2	3½	S.	9	2	3½	S.	9	2	3	S.	8	2
Preventer	4	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—
Strapping	4	—	—	—	4	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—
Lifts	3½	D.	12	2	3½	D.	12	2	3	D.	10	2	3	D.	10	2	3	Sis.	17	2	2½	Sis.	16	2	2½	Sis.	14	2
		S.	12	4		S.	12	4		S.	10	4		S.	10	4		S.	10	4		S.	9	4		S.	8	4
Beckets	4	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—
Strapping	4	—	—	—	4	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—
Seizing	¾	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parral-Ropes	3½	Par.	24	1	3½	Par.	22	1	2½	Par.	16	1	2½	Par.	16	1	2½	Par.	16	1	2½	Par.	15	1	2	Par.	14	1
Racking & Seizing	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—		Tarred Line		—	—	—	—	—
Clue-lines	4	S. st. bd.	14	4	3½	S.st bd.	12	4	3	S.st. bd.	10	4	3	S.st. bd.	10	4	2½	S. st. bd.	9	4	2½	S. st. bd.	9	4	2	S. st. bd.	8	4
		S.	14	2		S.	12	2		S.	10	2		S.	10	2		S.	9	2		S.	9	2		S.	8	2
Strapping	4	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—
Bunt-lines	3	S.	11	4	3	S.	10	4	2½	S.	8	4	2½	S.	8	4	2	S.	7	4	2	S.	7	4	2	S.	7	4
Strapping	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—
Leech lines	2½	S.	10	2	2½	S.	9	2	2	S.	7	2	2	S.	7	2	1½	S.	6	2	1½	S.	6	2	1½	S.	6	2
Strapping	2½	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—
Bow-lines	3½	S.	12	2	3	S.	11	2	2½	S.	9	2	2½	S.	9	2	2½	S.	9	2	2½	S.	9	2	2	S.	8	2

TABLE OF THE DIMENSIONS OF RIGGING, WITH THE SPECIES, SIZE, AND NUMBER, OF BLOCKS, &c. CONTINUED.

Names of the standing and running Rigging.	110 to 74 Guns.				64 Guns.				50 to 36 Guns.				32 to 28 Guns.				24 Guns.				22 to 20 Guns.				18 to 14 Guns.			
		Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.		
	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N
Bridles	3½	T.	—	4	5	T.	—	4	2½	T.	—	4	2½	T.	—	4	2½	T.	—	4	2½	T.	—	4	2	T.	—	4
Strapping	3½	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—
Lashing	1½	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Reeftackle Pendents	4	*D.	9	4	3½	*D.	8	4	3	*D.	7	4	3	*D.	7	4	2½	*S.	7	4	2½	*S.	7	4	2½	*S.	7	4
Falls	2½	—	—	2	2	—	—	2	1½	—	—	2	1½	—	—	2	1½	—	—	2	1½	—	—	2	1½	—	—	2
Strapping	3	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—
Ear-rings	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—
Sheets	8	S. Sho. ¼ thk & th. c.	26 26	2 2	7	S. Sho. ¼ thk & th. c.	24 24	2 2	5½	S. Sho. ¼ thk & th. c.	17 17	2 2	5½	S. Sho. ¼ thk & th. c.	17 17	2 2	5	S. Sho. ¼ thk & th. c.	16 16	2 2	4½	S. Sho. ¼ thk & th. c.	15 15	2 2	4	S. Sho. ¼ thk & th. c.	14 14	2 2
Straps for Sheet Blocks	8	—	—	—	7½	—	—	—	6	—	—	—	6	—	—	—	5½	—	—	—	5	—	—	—	4½	—	—	—
Straps for Quarter do.	6	—	—	—	5½	—	—	—	4½	—	—	—	4½	—	—	—	4	—	—	—	4	—	—	—	3½	—	—	—
Lashers for Quarter Blocks	2½	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—
Seizings	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Span	3½	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—
Stoppers	6½	—	—	—	5½	—	—	—	4½	—	—	—	4½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—
Slings	5	—	—	—	5	—	—	—	4	—	—	—	4	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—
Staysail-Stay	4	S.	13	1	4	S.	13	1	3½	S.	11	1	3½	S.	11	1	3	S.	10	1	3	S.	10	1	2½	S.	9	1
Tackle	2½	D. S.	10 9	1 1	2	D. S.	9 8	1 1	2	D. S.	8 7	1 1	2	D. S.	8 7	1 1	1½	D. S.	7 6	1 1	2	S. S.	8	2	2	S. S.	8	2
Haliard	3½	S.	12	1	3½	S.	12	1	3	S.	10	1	3	S	10	1	2	S.	8	1	2	S.	8	1	2	S.	8	1
Strapping	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—
Sheets	4	S.	13	2	3½	S.	12	2	3	S.	10	2	3	S.	10	2	2½	S.	9	2	2½	S.	9	2	2½	S.	9	2
Strapping	4	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—
Out-Hauler	2½	S.	9	1	2½	S.	9	1	2	S.	7	1	2	S.	7	1	2	S.	7	1	2	S.	7	1	1½	S.	6	1

Down-Hauler . .	2½	S.	9	1	2	S.	9	1	2	S.	7	1	2	S.	7	1	1½	S.	6	1	1½	S.	6	1	1	S.	5	1
Strapping . . .	2½	—	—	—	2	—	—	—	2	—	-	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—
Studdingsl-Haliards	3½	S.	12	6	3½	S.	12	6	3	S.	10	6	3	S.	10	6	2½	S.	9	6	2½	S.	9	6	2	S.	8	6
Sheets	5	S.	12	2	3	S.	12	2	2½	S.	10	2	2½	S.	10	2	2	S.	9	2	2	S.	9	2	1½	S.	8	2
Tacks	3½	S.	12	4	3½	S.	12	2	3	S.	10	2	3	S.	10	2	2½	S.	9	2	2½	S.	9	2	2	S.	8	2
†Down-Haulers .	2	S.	9	2	2	S.	8	2	1½	S.	6	2	1½	S.	6	2	1½	S.	6	2	1½	S.	6	2	1	S.	—	—
Boom-Tackles .	2	D.	8	2	2	D.	8	2	2	D.	7	2	2	D.	7	2	—	—	—	—	—	—	—	—	—	—	—	—
		S.	8	4		S.	8	4		S.	7	4		S.	7	4	—	—	—	—	—	—	—	—	—	—	—	—
Tails and Straps	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—
	2½	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—												
FORE-TOPGALLANT MAST.																												
Shrouds	4	T.	—	12	3½	T.	—	12	3	T.	—	12	3	T.	—	12	3	T.	—	12	2½	T.	—	12	2½	T.	—	12
Laniards . . .	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—
Standing-Backstays	4	D.E.	7	4	3½	D.E.	6	4	3	D.E.	6	4	3	D.E.	6	4	3	D.E.	6	4	2½	T.	—	4	2½	T.	—	4
Laniards . . .	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—
Staycabled 4 Strands	4½	S.	12	1	4	S.	12	1	3½	S.	10	1	3½	S.	10	1	3½	S.	10	1	3	T.	—	1	3	T.	—	1
Strapping . . .	3½	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—
Tackle . : .	2	D.	7	1	2	D.	7	1	2	D.	7	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		S.	7	1		S.	7	1		S.	7	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strapping . . .	2½	—	—	—	2½	—	—	—	2½	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Flagstaff-Stay . .	2	T.	—	1	2	T.	—	1	2	T.	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Haliards . . .	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Royal Haliard .	2½	S.	7	1	2	S.	7	1	2	S.	7	1	2	S.	7	1	1½	S.	6	1	1½	S.	6	1	1½	S.	6	1
FORE-TOPGALLANT YARD																												
Tie	4	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—
Haliard . . .	2	D.	8	1	2	D.	8	1	1½	D.	6	1	1½	D.	6	1	1½	D.	6	1	1½	S.	6	2	1½	S.	6	2
		S.	8	2		S.	8	2		S.	6	2		S.	6	2		S.	6	2								
Strapping . . .	2½	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—
Horses	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—
Braces	2	S.	8	6	2	S.	7	6	2	S.	7	4	2	S.	7	4	2	S.	7	4	2	S.	7	4	1½	S.	6	4
Pendents . . .	3	S.	8	2	2½	S.	7	2	2	S.	6	2	2	S.	6	2	—	S.	—	—	—	S.	—	—	—	S.	—	—
Strapping . . .	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—
Lifts single . . .	2½	S.	8	2	2½	S.	7	2	2½	S.	7	2	2½	S.	—	—	2½	S.	—	—	2½	S.	—	—	2	S.	—	—
Strapping . . .	2½	T.	—	2	2½	T.	—	2	2½	T.	—	2	—	T.	—	2	—	T.	—	2	—	T.	—	2	—	T.	—	2

† Studdingsail Down-haulers have six thimbles.

TABLE OF THE DIMENSIONS OF RIGGING, WITH THE SPECIES, SIZE, AND NUMBER OF BLOCKS, &c. CONTINUED.

Names of the standing and running Rigging	110 to 74 Guns.				64 Guns.				50 to 36 Guns.				32 to 28 Guns.				24 Guns.				22 to 20 Guns.				18 to 14 Guns.			
		Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.		
	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N
Parral-Ropes	2½	Par.	12	1	2	Par.	11	1	1½	Par.	8	1	1½	Par.	8	1	1½	Par.	8	1	1½	Par.	8	1	1½	Par.	6	1
Cue-lines	2½	S.	7	6	2	S.	7	6	1½	S.	6	6	1½	S.	6	4	1½	S.	6	4	1½	S.	6	4	1	S.	5	4
Strapping	2½	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—	1	—	—	—
Bow-lines	2½	S.	7	2	2	S.	7	2	1½	S.	6	2	1½	T.	—	6	1½	T.	—	6	1	T.	—	6	1	T.	—	6
Bridles	2½	T.	—	6	2	T.	—	6	1½	T.	—	6	1½		—	—	1½		—	—	1		—	—	1		—	—
Strapping	2½	—	—	—	2	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ear-rings	Tarr'd Line		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Shifting Backstays	4	T.	—	2	3½	T.	—	2	3	T.	—	2	3	T.	—	2	3	T.	—	2	2½	T.	—	1	2½	T.	—	1
Tackles	2	*D.	7	2	2	*D.	7	2	1½	*D.	6	2	1½	*D.	6	2	1½	*D.	6	2	1½	*S.	6	2	1½	*S.	6	2
		*S.	7	2		*S.	7	2		*S.	6	2		*S.	6	2		*S.	6	2								
Strapping	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—
Studding-sail Haliards	2½	S.	7	6	2	S.	7	6	1½	S.	6	6	1½	S.	6	6	1½	S.	6	6	1½	S.	6	6	1½	S.	6	6
Sheets	2	—	—	—	2	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—
Tacks	2	S.	7	4	2	S.	7	4	1½	S.	6	4	1½	S.	6	4	1½	S.	6	4	1½	S.	6	4	1½	S.	6	4
Down-Haulers	1½	T.	—	1	1½	T.	—	1	1	T.	—	1	1	T.	—	1	1	T.	—	1	1	T.	—	1	1	T.	—	—
Strapping	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1¼	—	—	—	1½	—	—	—
MAIN-MAST.																												
Wooldings	3½	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—
Girtlines	5	S.	16	2	4	S.	15	2	3½	S.	13	2	3	S.	12	2	3	S.	11	2	3	S.	10	2	2½	S.	9	2
Strapping	5	—	—	—	4	—	—	—	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—
Seizing	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lashing	2½	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	¼	—	—	—
Pendents of Tackles cabled	11	*S. c.	24	2	10½	*S. c.	22	2	8½	*S. c.	17	2	8	*S. c.	17	2	7½	*S. c.	15	2	7½	*S. c.	15	2	7	*S. c.	15	2
Strapping	7½	T.	—	8	6½	T.	—	8	5½	T.	—	8	5½	T.	—	4	5	T.	—	4	5	T.	—	4	4½	T.	—	4
Seizing	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—

Runners of Tackles	7½	D. th. c.	21	4	6½	D. th. c.	21	4	5½	D. th. c.	17	4	5½	D. th. c.	16	2	5	D.	—	—	4½	D.	—	—	4	D.	—	—
Strapping . . .	6	—	—	—	6	—	—	—	5	—	—	—	5	—	—	—	4	—	—	—	4	—	—	—	3½	—	—	—
Falls of Tackles .	4	*S. th. c.	26	4	4	*S. th. c.	24	4	3	*S. th. c.	18	4	3	*S. th. c.	17	4	3	*S. th. c.	15 11	2 2	3	*S. th. c.	15 11	2 2	2½	*S. th. c.	13 9	2 2
Strapping . . .	5½	—	—	—	5½	—	—	—	5	—	—	—	5	—	—	—	4	—	—	—	4	—	—	—	3½	—	—	—
Seizing . . .	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Shrouds cabled .	11	D.E.	17	20	10½	D.E.	16	18	8½	D.E.	13	14	8	D.E.	13	14	7½	D.E.	11	14	7½	D.E.	11	12	7 7	D E	10 10	12 10
Seizing Eye .	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—
Throat	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—
End .	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Laniard . . .	5½	—	—	—	5	—	—	—	4	—	—	—	4	—	—	—	4	—	—	—	4	—	—	—	3½	—	—	—
Ratline . . .	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—
Stay cabled 4 strands	19	H.	26	1	17½	H.	22	1	14½	H.	19	1	12½	H.	17	1	11½	H.	16	1	11½	H.	16	1	10	H.	15	1
Seizing	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—
Laniard . . .	6	—	—	—	5	—	—	—	4½	—	—	—	4	—	—	—	4	—	—	—	4	—	—	—	3½	—	—	—
Collar cabled 4 strds.	14	H.	26	1	12½	H.	22	1	10	H.	19	1	9	H.	17	1	9	H.	16	1	8½	H.	16	1	8	H.	15	1
Worming . . .	2	—	—	—	2	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—
Seizing	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—
Lashing . . .	4	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—
Preventer-Stay cabled 4 strands	13	H.	17	1	12	H.	16	1	10	H.	14	1	8½	H.	13	1	8	H.	12	1	8	H.	12	1	7	H.	11	1
Laniard . . .	5	—	—	—	4	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—
Collar cabled 4 strds.	6	H.	17	1	6	H.	16	1	5	H.	14	1	5	H.	13	1	4½	H.	12	1	4½	H.	12	1	4½	H.	11	1
Lashing . . .	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—
Seizing . . .	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—
Catharpin-Legs . .	7	—	—	—	6½	—	—	—	5	—	—	—	5	—	—	—	4½	—	—	—	4	—	—	—	3½	—	—	—
Seizings . . .	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—
Stay Tackle Pendent	6	D. th. c.	18	1	6	D. th. c.	17	1	5	D. th. c.	14	1	5	D. th. c.	14	1	5	D. th. c.	12	1	5	D. th. c.	12	1	5	D. th. c.	12	1
Falls	3½	*S. th. c.	20 14	1 1	3½	*S. th. c.	18 14	1 1	3	*S. th. c.	16 12	1 1	3	*S. th. c.	16 12	1 1	3	*S. th. c.	13 11	1 1	3	*S. th. c.	14 11	1 1	3	*S. th. c.	13 11	1 1
Strapping . . .	4½	—	—	—	4	—	—	—	4	—	—	—	4	—	—	—	4	—	—	—	3½	—	—	—	3½	—	—	—
Seizing . . .	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Lashing . . .	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—

TABLE OF THE DIMENSIONS OF RIGGING, WITH THE SPECIES, SIZE, AND NUMBER, OF BLOCKS, &c. CONTINUED.

Names of the standing and running rigging.	110 to 74 Guns.				64 Guns.				50 to 36 Guns.				32 to 28 Guns.				24 Guns.				22 to 20 Guns.				18 to 14 Guns.			
		Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.		
	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N
Fore hatch Tackle-Fall †	3½	D. th. c. *S. th. c. *S. th. c.	13 20 14	1 1 1	3½	D. th. c. *S. th. c. *S. th. c.	16 18 14	1 1 1	3	D. th. c. *S. th. c. *S. th. c.	14 16 12	1 1 1	3	D. th. c. *S. th. c. *S th. c.	14 16 12	1 1 1	3	D· th. c. *S. th. c. *S. th. c.	12 13 11	1 1 1	3	D. th. c. *S. th. c. *S. th. c.	12 13 11	1 1 1	3	D. th. c. *S. th. c. *S. th. c.	12 13 11	1 1 1
Strapping . .	4½	—	—	—	4	—	—	—	4	—	—	—	4	—	—	—	3½	—	—	—	3½	—	—	—	3½	—	—	—
Seizing . . .	¾	—	—	—	¾	—	—	—	¾	—	—	—	¼	—	—	—	¼	—	—	—	¾	—	—	—	¾	—	—	—
MAIN-YARD.																												
Jears ‡ { Tie . Falls .	8	Tr. c. D. c.	28 28	2 2	7	Tr. c. D. c.	26 26	2 2	6	D. c.	19	1	5½	D. c.	19	4	7½ 3	S. d.sc. c. D. S.	20 12 9	3 4 2	7½ 3	S. d.sc. c. D. S.	20 12 9	3 4 2	7 2½	S. d.sc. c. D. S.	20 12 9	3 4 2
Strapping . .	9	—	—	—	8	—	—	—	6½	—	—	—	6	—	—	—	5½ 4½ 3	— — —	— — —	— — —	5 4 3	— — —	— — —	— — —	5 4 2½	— — —	— — —	— — —
Seizing . . .	2	—	—	—	2	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—
Lashers { Mast-Head	4½	—	—	—	4	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—
to the { Yard . .	3½	—	—	—	3	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—
Stoppers. . .	6	—	—	—	6	—	—	—	4½	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Horses.	5½	T.	—	2	5	T.	—	2	4½	T.	—	2	4	T.	—	2	4	T.	—	2	4	T.	—	2	3½	T.	—	2
Stirrups . . .	4	T.	—	8	4	T.	—	8	3	T.	—	6	3	T.	—	6	3	T.	—	6	3	T.	—	6	2½	T.	—	6
Seizing . . .	¾	—	—	—	¾	—	—	—	Ta	rred line	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Laniards . .	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	1	—	—	—	1	—	—	—
Yard-Tackle Pendts.	7	D. th. c.	17	2	6½	D. th. c.	16	2	5½	D. th. c.	14	2	5½	D. th. c.	14	2	5	D. th. c.	12	2	5	D. th. c.	12	2	4½	D. th. c	11	2
Falls	3½	*S. th. c. S.	20 15	2 2	3½	*S. th. c. S.	18 13	2 2	3	*S. th. c. S.	16 12	2 2	3	*S. th. c. S.	16 12	2 2	3	*S th. c. S.	13 11	2 2	3	*S. th. c. S.	14 10	2 2	2½	*S. th. c. S.	13 9	2 2
Strapping . . .	5½	—	—	—	5	—	—	—	4	—	—	—	4	—	—	—	3½	—	—	—	3½	—	—	—	3	—	—	—
Seizing	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—
Inner tricing-Lines	2½	S.	8	2	2	S.	7	2	2	S.	7	2	2	S.	7	2	1½	S.	6	2	1½	S.	6	2	1½	S.	6	2
Outer tricing-Lines	2	S.	7	4	2	S.	7	4	1½	S.	6	4	1½	S.	6	4	1½	S.	6	4	1½	S.	6	4	1½	S.	6	4

† The Stay and Fore-Hatch Tackle have 2 thimbles.

‡ Main Jears of a 28-gun ship have three 21-inch single blocks with double scores and coaked; two 13 inch treble blocks, coaked; and two 13-inch double blocks, coaked.

Strapping	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—
Braces	4½	S. c.	16	2	4	S. c.	15	2	3½	S. c.	12	2	3½	S. c.	12	2	3	S. c.	10	2	3	S. c.	10	2	2½	S. c.	9	2
Pendents	5½	S. c.	16	2	5	S. c.	15	2	4½	S. c.	12	2	4½	S. c.	12	2	4	S. c.	10	2	4	S. c.	10	2	3½	S. c.	9	2
Preventer	4½	—	—	—	4	—	—	—	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—
Strapping	5	—	—	—	4½	—	—	—	4	—	—	—	4	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—
Seizing	¾	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Preventrs, in war only	3½	S.	13	4	3½	S.	13	4	3	S.	11	4	3	S.	11	4	2½	S.	9	4	2½	S.	9	4	2	S.	8	4
Strapping	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—
Seizing	¾	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lifts	4½	S.	16	6	4	S.	15	6	3½	S.	12	6	3½	S.	12	6	3½	S.	11	6	3	S.	11	6	3	S.	9	6
Span for Cap	6½	—	—	—	6	—	—	—	5	—	—	—	5	—	—	—	4½	—	—	—	4½	—	—	—	4	—	—	—
Short Span	4½	—	—	—	4	—	—	—	3½	—	—	—	3½	—	—	—	3½	—	—	—	3½	—	—	—	3	—	—	—
Strapping	5	—	—	—	4½	—	—	—	4	—	—	—	4	—	—	—	3½	—	—	—	3½	—	—	—	3	—	—	—
Seizing	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Jigger-Tackle	2½	D.	10	2	2½	D.	10	2	2	D.	8	2	2	D.	8	2	2	D.	8	2	—	—	—	—	—	—	—	—
		S.	10	2		S.	10	2		S.	8	2		S.	8	2		S.	8	2	—	—	—	—	—	—	—	—
Strapping	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	—	—	—	—	—	—	—	—
Truss-pendents	8	T.	—	4	7½	T.	—	4	6	T.	—	4	5½	T.	—	4	5	T.	—	4	5	T.	—	4	4½	T.	—	4
Falls	3	*D.	11	4	3	*D.	11	4	2½	*D.	9	4	2½	*D.	9	4	2	*D.	8	4	2	*D.	8	4	2	*D.	8	4
Strapping	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—
Eye-Seizings	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Nave-Line	2	S.	7	1	2	S.	7	1	1½	S.	6	1	1½	S.	6	1	1½	S.	6	1	—	—	—	—	—	—	—	—
Puddening the Yard	6½	—	—	—	6	—	—	—	6	—	—	—	6	—	—	—	5½	—	—	—	5	—	—	—	5	—	—	—
Clue-Garnets	4	St. bd.	15	4	3½	St. bd.	13	4	3	St. bd.	12	4	3	St. bd.	12	4	2½	St. bd.	9	4	2½	St. bd.	9	4	2½	St. bd.	9	4
		S.	15	2		S.	13	2		S.	12	2		S.	12	2		S.	9	2		S.	9	2		S.	9	2
Strap about the Yard	4	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—
Strapping	4	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—
Seizing	¾	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lashing	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—
Buntline-Legs	3	D.	11	2	3	D.	10	2	2½	D.	8	2	2½	D.	8	2	2	D.	7	2	2	D.	7	2	2	D.	7	2
Falls	3	S.	11	10	3	S.	10	10	2½	S.	8	10	2½	S.	8	10	2	S.	7	8	2	S.	7	8	2	S.	7	8
Strapping	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—
Leechline-Legs	2½	D.	11	4	2½	D.	10	4	2	D.	7	4	2	D.	7	4	2	D.	7	4	2	D.	7	4	2	D.	7	4
Falls	2½	S.	10	10	2½	S.	10	10	2	S.	7	10	2	S.	7	10	2	S.	7	8	2	S.	7	4	2	S.	7	4

TABLE OF THE DIMENSIONS OF RIGGING, WITH THE SPECIES, SIZE, AND NUMBER, OF BLOCKS, &c. CONTINUED.

Names of the standing and running Rigging.	110 to 74 Guns.				64 Guns.				50 to 36 Guns.				32 to 28 Guns.				24 Guns.				22 to 20 Guns.				18 to 14 Guns.			
		Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.		
	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N
Strapping	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—
Slablines	2½	S.	9	2	2	S.	8	2	2	S.	7	2	2	S.	7	2	1½	S.	6	2	1½	S.	6	2	1½	S.	—	—
Strapping	2½	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—
Bowlines	4½	D.	16	1	4½	D.	16	1	3½	D.	14	1	3½	D.	14	1	3	D.	12	1	3	D.	12	1	3	D.	12	1
Bridles	4½	T.	—	6	4½	T.	—	6	3½	T.	—	6	3½	T.	—	6	3	T.	—	6	3	T.	—	6	3	T.	—	6
Strapping	4½	—	—	—	4½	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—
Seizing	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Lashing	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—
Tackles	3	*L. t.	20	1	2½	*L. t.	16	1	2	*L. t.	14	1	2	*D.	9	1	2	*D.	8	1	2	*D.	8	1	2	*D.	8	1
		*S.	11	1		*S.	9	1		*S.	8	1		*S.	9	1		*S.	8	1		*S.	8	1		*S.	8	1
Strapping	3½	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—
Ear-rings	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—
Sheets cabled	7½	S. c.	24	4	6½	S. c.	22	4	5½	S. c.	17	4	5½	S. c.	17	4	5	S. c.	15	2	5	S. c.	15	2	4½	S. c.	14	2
Strapping	7½	T.	—	4	6½	T.	—	4	5½	T.	—	4	5½	T.	—	4	5	T.	—	2	5	T.	—	2	4½	T.	—	2
Seizing	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Lashers	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Stoppers	6	—	—	—	5½	—	—	—	4½	—	—	—	4½	—	—	—	4	—	—	—	3½	—	—	—	3	—	—	—
Tacks taper & cabled	10	—	—	—	8½	—	—	—	7	—	—	—	7	—	—	—	6	—	—	—	6	—	—	—	5½	—	—	—
Stoppers	6	H. & T.	2	2	5½	H. & T.	2	2	4½	H. & T.	2	2	4½	H. & T.	2	2	4	H. & T.	2	2	4	H. & T.	2	2	4	H. & T.	—	—
Lanyards	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	¾	—	—	—
Lanids. for Pad & Dol	1½	T.	—	4	2	T.	—	4	1	T.	—	4	1	T.	—	4	1	T.	—	4	1	T.	—	4	—	—	—	—
Slings	12	—	—	1	11	—	—	1	9	—	—	1	8½	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Straps	12	—	—	1	11	—	—	1	9	—	—	—	8½	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Seizing	2	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lanyard	3½	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Quarter Tack. Pendts.	6	D. th. c.	18	2	6	D. th. c.	17	2	5	D. th. c.	14	2	5	D. th. c.	14	2	5	D. th. c.	12	2	5	D. th. c.	12	2	4½	D. th. c.	11	2

Falls	3½	*S. th. c. *S. th. c.	20 14	2 2	3½	*S. th. c. *S. th. c.	19 14	2 2	3	*S. th. c. *S. th. c.	16 12	2 2	3	*S. th. c. *S. th. c.	16 12	2 2	3	*S. th. c. *S. th. c.	13 11	2 2	3	*S. th. c. *S. th. c.	14 11	2 2	2½	*S. th. c. *S. th. c.	13 11	2 2
Strapping	5	—	—	—	4½	—	—	—	4	—	—	—	4	—	—	—	4	—	—	—	4	—	—	—	3½	—	—	—
Seizing	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Luff-Tackles	3½	*D. *S.	13 13	6 6	3½	*D. *S.	13 13	6 6	3	*D. *S.	12 12	4 4	3	*D. *S.	12 12	4 4	3	*D. *S.	11 11	4 4	2½	*D. *S.	10 10	3 3	2½	*D. *S.	10 10	3 3
Strapping	4	—	—	—	4	—	—	—	3½	—	—	—	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—
Seizing	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Staysail-stay	5	T.	—	2	4½	T.	—	2	3½	T.	—	2	3½	T.	—	2	3½	T.	—	2	3	T.	—	2	3	T.	—	2
Collar	4	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—
Seizing	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Laniards	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—
†Haliards	3	S.	11	3	3	S.	10	3	3	S.	10	3	3	S.	10	3	2½	S.	9	3	2½	S.	9	3	2	S.	8	3
†Sheets	4	S.	14	2	4	S.	13	2	3	S.	10	2	3	S.	10	2	2½	S.	9	2	2½	S.	9	2	2	S.	8	2
Tacks	4	—	—	—	4	—	—	—	3	—	—	—	3	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—
Downhauler	2½	S.	9	1	2	S.	8	1	2	S.	8	1	2	S.	8	1	2	S.	8	1	2	S.	8	1	1½	S.	6	1
Strapping	4 3	— —	— —	— —	4 3	— —	— —	— —	3 2½	— —	— —	— —	3 2½	— —	— —	— —	2½ 2	— —	— —	— —	2½ 2	— —	— —	— —	2 1½	— —	— —	— —
Studdingsail-Haliards, Inner	3	S.	12	6	3	S.	12	6	2	S.	9	6	2	S.	9	6	2	S.	9	6	2	S.	9	6	2	S.	9	6
Outer	3½	S.	12	4	3½	S.	12	4	2½	S.	9	4	2½	S.	9	4	2½	S.	9	4	2½	S.	9	4	2½	S.	9	4
Sheets	3	—	—	—	3	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—
Tacks	3½	S.	12	2	3½	S.	12	2	2½	S.	9	2	2½	S.	9	2	2½	S.	9	2	2½	S.	9	2	2½	S.	9	2
Strapping	3½	—	—	—	3½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—
MAIN-TOPMAST.																												
Burton-Pendents	5½	T.	—	2	5	T.	—	2	4½	T.	—	2	4	T.	—	2	4	T.	—	2	3½	T.	—	2	3	T.	—	2
Fall	2½	*D. *S.	11 11	2 2	2½	*D. *S.	11 11	2 2	2	*D. *S.	9 9	2 2	2	*D. *S.	9 9	2 2	2	*D. *S.	8 8	2 2	2	*D. *S.	8 8	2 2	1½	*D. *S.	6 6	2 2
Strapping	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—
Shrouds	7	D.E.	11	12	6½	D.E.	10	12	5½	D.E.	8	8	5½	D.E.	8	8	5	D.E.	8	8	4½	D.E.	7	8	4½	D.E.	7	8
Seizing Eye	1	—	—	—	1	—	—	—	¾	—	—	—	¾	Tarred Li	ne	—	—	—	—	—	—	—	—	—	—	—	—	—
Throat	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	Tarr'd	Li	ne	—	—	—	—	—	—	—	—
End	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾				—	—	—	—	—	—	—	—
Laniards	3½	—	—	—	3½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—

† One hook and thimble to staysail haliard and sheet.

TABLE OF THE DIMENSIONS OF RIGGING, WITH THE SPECIES, SIZE, AND NUMBER, OF BLOCKS, &c. CONTINUED.

Names of the standing and running rigging.	110 to 74 Guns.				64 Guns.				50 to 36 Guns.				32 to 28 Guns.			
		Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.		
	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N
Ratline	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—
Standing Backstays	7	D.E.	11	6	6½	D·E·	10	4	5½	D·E.	8	4	5½	D·E·	8	4
Seizings. Eye	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—
Seizings. Throat	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—
Seizings. End	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Lanniard	3½	—	—	—	3½	—	—	—	2½	—	—	—	2½	—	—	—
Breast Backstay Run.	5	S.	14	2	4	S.	12	2	3½	S.	11	2	3½	S.	11	2
Falls	2½	D.	10	4	2½	D.	10	4	2½	D.	9	4	2½	D.	9	4
Strapping	3	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—
Stay cabled 4 strands	8½	—	—	—	7½	—	—	—	6	—	—	—	6	—	—	—
Collar	7	S.	20	1	6½	S.	18	1	5	S.	15	1	5	S.	15	1
Tackle	3½	L. t.	24	1	3	L. t.	20	1	2½	L. t.	15	1	2½	L. t.	18	1
		*S.	14	1		*S.	12	1		*S.	9	1		*S.	9	1
Strapping	4½	—	—	—	4	—	—	—	3½	—	—	—	3½	—	—	—
Seizing	1	—	—	—	1¼	—	—	—	¾	—	—	—	¾	—	—	—
	¾	—	—	—	¾	—	—	—		—	—	—		—	—	—
Lashing	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—
Preventer-Stay cabled 4 strands	6½	—	—	—	6	—	—	—	4½	—	—	—	4½	—	—	—
Collar	5	S.	16	1	5	S.	15	1	3½	S.	11	1	3½	S.	1	1
Tackle	3	L. t.	18	1	2½	L. t.	18	1	2	L. t.	16	1	2	L. t.	16	1
		*S.	[illegible]	1		*S.	10	1		*S.	9	1		*S.	9	1
Strapping	4	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—
Seizing	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—
Collar Lashing	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—

Names of the standing and running rigging.	24 Guns.				22 to 20 Guns.				18 to 14 Guns.			
		Blocks, &c.				Blocks, &c.				Blocks, &c.		
	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N
Ratline	1	—	—	—	1	—	—	—	1	—	—	—
Standing Backstays	5	D. E.	8	4	4½	D.E.	7	4	4½	D.E.	7	2
Seizings. Eye												
Seizings. Throat		Tarred	Li	ne	—	—	—	—	—	—	—	—
Seizings. End												
Lanniard	2½	—	—	—	2½	—	—	—	2½	—	—	—
Breast Backstay Run.	3½	S.	11	2	3	S.	10	2	3	S.	9	2
Falls	2	D.	8	4	2	D.	7	2	2	D.	7	2
						S.	7	2		S.	7	2
Strapping	2½	—	—	—	2½	—	—	—	2½	—	—	—
Stay cabled 4 strands	6	—	—	—	5½	—	—	—	5½	—	—	—
Collar	5	S.	15	1	4½	S.	15	1	4	S.	14	1
Tackle	2½	L. t.	18	1	2½	L. t.	16	1	2½	L. t.	15	1
		*S.	9	1		*S.	8	1		*S.	7	1
Strapping	3	—	—	—	3	—	—	—	3	—	—	—
Seizing	¾	—	—	—	¾	—	—	—	¾	—	—	—
Lashing	2	—	—	—	1½	—	—	—	1	—	—	—
Preventer-Stay cabled 4 strands	4½	—	—	—	4	—	—	—	4	—	—	—
Collar	3½	S.	11	1	3½	S.	11	1	3	S.	11	1
Tackle	2	L. t.	16	1	2	*L.t.	15	1	1½	*L.t.	—	—
		*S.	8	1		*S.	7	1		*S.	—	—
Strapping	3	—	—	—	3	—	—	—	—	—	—	—
Seizing	¾	—	—	—	¾	—	—	—	¾	—	—	—
Collar Lashing	1½	—	—	—	1	—	—	—	¾	—	—	—

Shifting Backstays	7	T.	—	2	6½	T.	—	2	5½	T.	—	2	5½	T.	—	2	5	T.	—	2	4½	T.	—	2	4½	T.	—	1
Tackles	3	*D.	12	4	3	*D.	12	4	2½	*D.	10	4	2½	*D.	10	4	2	*D.	8	4	2	*D.	8	2	2	*D.	8	1
		*S.	12	4		*S.	12	4		*S.	10	4		*S.	10	4		*S.	8	4		*S.	8	2		*S.	8	1
Strapping	4	—	—	—	4	—	—	—	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—
Futtock-Shrouds	7	*Pl.d.e.	11	12	6½	*Pl. d.e.	10	12	5½	*Pl.d. e.	8	8	5½	*Pl.d.e.	8	8	5	*Pl.d.c.	8	8	4½	*Pl.d.e.	7	8	4½	*Pl. d.e.	7	8
Seizings { Upper	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Seizings { Lower	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Ratline	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—
† Top-rope pendents	9	—	26	2	8½	—	22	2	7	—	20	2	6½	—	20	2	6½	—	18	2	6	—	17	2	6	—	16	1
Falls	5	Tr·I·b.c	22	4	4	Tr I·b·c·	21	4	4	Tr·I·b,c·	15	4	3½	D. I.b.c.	15	4	3½	D.I.b.c.	15	4	3	D. I.b.c.	14	4	3	D. I.b.c.	14	2
MAIN-TOP-SAIL-YD.																												
Tie	6	Fl. si.	22	2	5½	Fl. si.	19	2	4½	Fl. si.	17	2	4½	Fl. si.	16	2	4½	Fl. si.	15	2	4½	Fl. si.	15	2	4	S. do.sc.	14	1
		D.	22	1		D.	19	1		D.	17	1		D.	16	1		D.	15	1		D.	15	1				
Strapping	6½	—	—	—	5½	—	—	—	4½	—	—	—	4½	—	—	—	4½	—	—	—	4	—	—	—	4	—	—	—
Seizings	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Lashing { Mast-head	2½	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—
at the { Yard	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—
Haliards	3½	D. th. c.	26	2	5½	D. th. c.	24	2	3	D. th. c.	19	2	3	D. th. c.	18	2	2½	D. th. c.	17	2	2½	D. th. c.	16	2	2½	D. th. c.	14	1
		*S.th.c.	26	2		*S. th.c.	24	2		*S. th.c.	19	2		*S. th.c.	18	2		*S. th.c.	17	2		*S. th.c.	16	2		*S. th.c.	14	1
Strapping	5	—	—	—	4½	—	—	—	4½	—	—	—	4½	—	—	—	4	—	—	—	3½	—	—	—	3½	—	—	—
Seizing	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Horses	4½	—	—	—	4	—	—	—	3½	—	—	—	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—
Stirrups	3	T.	—	6	3	T.	—	6	3	T.	—	6	3	T.	—	6	2½	T.	—	4	2	T.	—	4	2	T.	—	4
Braces	3½	S.	14	2	3½	S.	12	2	3	S.	10	2	3	S.	10	2	2½	S.	9	2	2½	S.	9	2	2	S.	8	2
Pendents	4½	S.	14	2	4½	S.	12	2	3½	S.	10	2	3½	S.	10	2	3½	S.	9	2	3½	S.	9	2	3	S.	8	2
Preventers	4	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—
Span about Mizen-mast	4½	—	—	—	4½	—	—	—	4	—	—	—	4	—	—	—	4	—	—	—	4	—	—	—	3½	—	—	—
Strapping	4	—	—	—	4	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—
Lifts	3½	D.	12	2	3½	D.	12	2	3	D.	10	2	3	D.	10	2	3	D.	10	2	2½	S.	9	4	2½	S.	8	4
		S.	12	4		S.	12	4		S.	10	4		S.	10	4		S.	10	4								
Beckets	4	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—
Strapping	4	—	—	—	4	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—
Seizing	¾	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parral-Ropes	4	Par.	25	1	3½	Par.	22	1	2½	Par.	18	1	2½	Par.	18	1	2½	Par.	18	1	2½	Par.	17	1	2	Par.	14	1

† Top-rope pendents have single iron bound blocks, with brass sheaves and two thimbles.

TABLE OF THE DIMENSIONS OF RIGGING, WITH THE SPECIES, SIZE, AND NUMBER, OF BLOCKS, *&c.* CONTINUED.

Names of the standing and running Rigging.	110 to 74 Guns.				64 Guns.				50 to 36 Guns.				32 to 28 Guns.				24 Guns.				22 to 20 Guns.				18 to 14 Guns.			
		Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.		
	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N
Standing-Backstays	4	D. E.	7	4	3½	D. E.	6	4	3	D. E.	6	4	3	D. E.	6	4	3	D. E.	6	4	2½	T.	—	4	2½	T.	—	4
Laniards	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—
Stay cabled 4 Strands	4½	S.	13	1	4	S.	12	1	3½	S.	11	1	3½	S.	10	1	3½	T.	—	1	3	T.	—	1	3	T.	—	1
Strapping	3½	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Flagstaff-Stay	2	T.	—	1	2	T.	—	1	2	T.	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Haliard	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—
Royal-Haliard	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—
MAIN TOP GALLANT YARD																												
Tie	4	—	—	—	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—
Haliard	2	D. S.	8 8	1 2	2	D. S.	8 8	1 2	1½	D. S.	7 7	1 2	1½	D. S.	7 7	1 2	1½	D. S.	6 6	1 2	1½	S.	6	2	1½	S.	6	2
Strapping	3½	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—
Horses	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—
Braces	2	S.	8	2	2	S.	7	2	1½	S.	6	2	1½	S.	6	2	1½	S.	6	2	1½	S.	6	2	1½	S	6	2
Pendents	3	S.	8	2	2	S.	7	2	2	S.	7	2	2	S.	7	2	—	—	—	—	—	—	—	—	—	—	—	—
Strapping	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	—	—	—	—
Lifts, single	2½	S.	8	2	2½	S.	7	2	2½	T.	—	2	2½	T.	—	2	2½	T.	—	2	2½	T.	—	2	2	T.	—	2
Strapping	2½	T.	—	2	2½	T.	—	2	2½	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parral Ropes	2	Par.	12	1	2	Par.	12	1	1½	Par.	9	1	1½	Par.	9	1	1½	Par.	8	1	1½	Par.	8	1	1½	Par.	7	1
Clue-lines	2	S.	7	6	2	S.	7	6	1½	S.	6	6	1½	S.	6	6	1½	S.	6	4	1½	S.	6	4	1	S.	5	4
Strapping	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—
Bow-Lines	2	S.	7	2	2	S.	7	2	1½	S.	6	2	1½	S.	6	2	1½	S.	6	2	1½	S.	6	2	1	—	—	—
Bridles	2	T.	—	6	2	T.	—	6	1½	T.	—	6	1½	T.	—	6	1½	T.	—	6	1½	T.	—	4	1	T.	—	2
Strapping	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	—	—	—	—
Far-Rings	Ta	rred Line	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Shifting Backstays	4	T.	—	2	3½	T.	—	2	3	T.	—	2	3	T.	—	2	3	T.	—	2	2½	T.	—	1	2½	T.	—	1

Tackles	2	*D. *S.	7 7	2 2	2	*D. *S.	7 7	2 2	1½	*D. *S.	6 6	2 2	1½	*D. *S.	6 6	2 2	1½	*D. *S.	6 6	2 2	1½	*S.	6	2	1	*S.	5	2
Strapping	2½	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—	1	—	—	—
Staysail-Stay	3	S.	10	1	3	S.	10	1	2½	S.	8	1	2½	S.	8	1	2½	S.	8	1	2½	S.	8	1	2	S.	7	1
Haliards	2½	S.	9	1	2½	S.	9	1	2	S.	7	1	2	S.	7	1	2	S.	7	1	2	S.	7	1	1½	S.	6	1
Sheets	2½	S.	9	2	2½	S.	9	2	2	S.	7	2	2	S.	7	2	2	S.	7	2	1½	S.	7	2	1½	S.	6	2
Tack	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—
Downhauler	2	S.	7	2	2	S.	7	2	1½	S.	6	2	1½	S.	6	2	1½	S.	6	2	1	S.	5	5	1	S.	5	2
Strapping	2½ 2	— —	— —	— —	2½ 2	— —	— —	— —	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—
Studdingsail-Haliards	2	S.	7	6	2	S.	7	6	2	S.	7	6	2	S.	7	6	2	S.	7	6	1½	S.	6	6	1½	S.	6	6
Sheets	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—
Tacks	2	S.	7	4	2	S.	7	4	2	S.	7	4	2	S.	7	4	2	S.	7	4	1½	S.	6	4	1½	S.	6	4
Downhaulers	1½	T.	—	2	1½	T.	—	2	1	T.	—	2	1	T.	—	2	1	T.	—	2	1	T.	—	2	1	—	—	—
Strapping	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—
MIZEN-MAST.																												
Woolding	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—	—	—	—	—
Girlines	3½	S.	12	2	3½	S.	12	2	3	S.	11	2	2½	S.	10	2	2½	S.	10	2	2½	S.	10	2	2	S.	9	2
Strapping	3½	—	—	—	3½	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—
Seizing	¾	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lashing	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—
Burton-Pendents	5	T.	—	2	5	T.	—	2	4	T.	—	2	4	T.	—	2	4	T.	—	2	3½	T.	—	2	3½	T.	—	2
Falls	3	*D. *S.	11 11	2 2	3	*D. *S.	11 11	2 2	2½	*D. *S.	9 9	2 2	2½	*D. *S.	9 9	2 2	2½	*D. *S.	9 9	2 2	2	*D. *S.	8 8	2 2	2	*D. *S.	8 8	2 2
Strapping	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—
Shrouds	7	D.E.	11	12	6½	D.E.	10	12	5½	D.E.	8	10	5½	D.E.	8	10	5	D.E.	8	10	4½	D.E.	7	8	4½	D.E.	7	8
Seizing { Eye	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—								
Throat	1	—		—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—		Tarr'd Line		—	—	—	—	—
End	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—								
Laniards	3½	—	—	—	3½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—
Ratline	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—
Stay cabled 4 strands	8½	T.	—	2	7½	T.	—	2	6	T.	—	2	6	T.	—	2	6	T.	—	2	5½	T.	—	2	5½	T.	—	2
Seizing	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Laniards	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—

TABLE OF THE DIMENSIONS OF RIGGING, WITH THE SPECIES, SIZE, AND NUMBER, OF BLOCKS, &c. CONTINUED.

Names of the standing and running Rigging.	110 to 74 Guns.				64 Guns.				50 to 36 Guns.				32 to 28 Guns.				24 Guns.				22 to 20 Guns.				18 to 14 Guns.			
		Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.		
	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N
Collar	7	T.	—	1	6½	T.	—	1	5	T.	—	1	5	T.	—	1	5	T.	—	1	4½	T.	—	1	4	—	—	—
Seizing	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—
Lashing	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	¾	—	—	—
YARD OR GAFF. Jears	6	Tr. c.	22	1	5	Tr. c.	18	1	4½	Tr. c.	16	1	4	D. c.	16	1	3½	D. c.	13	1	3½	D. c.	13	1	3	D. c.	11	1
		D. c.	22	1		D. c.	18	1		D. c.	16	1		S. c.	16	1		S. c.	13	1		S. c.	13	1		S. c.	11	1
Strapping	6½	—	—	—	5½	—	—	—	4½	—	—	—	4	—	—	—	3½	—	—	—	3½	—	—	—	3	—	—	—
Seizing	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Lashing at the Mast-Head	3	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—
Lashing at the Yard	2½	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—
Derrick	4½	D.	15	1	4	D.	14	1	3½	D.	12	1	3½	D.	12	1	3	D.	11	1	3	D.	11	1	2½	D.	10	1
Span	4½	S.	15	1	4	S.	14	1	3½	S.	12	1	3½	S.	12	1	3½	S.	11	1	3	S.	11	1	2½	S.	9	1
Strapping	4½	T.	—	1	4	T.	—	1	3½	T.	—	1	3½	T.	—	1	3	T.	—	1	3	—	—	—	3	—	—	—
Seizing	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lashing	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—
Vang-Pendents	4½	D.	9	2	4	D.	8	2	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—
Falls	2½	*S.	9	2	2	*S.	8	2	2	*S.	8	4	2	*S.	8	4	2	*S.	8	4	2	*S.	8	4	1½	*S.	6	4
Strapping	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—	1½	—	—	—
Bow-lines	3	S.	10	4	3	S.	10	4	2½	S.	9	4	2½	S.	9	4	2½	S.	8	2	2½	S.	8	2	—	—	—	—
Strapping	3	T.	—	2	3	T.	—	2	2½	T.	—	2	2½	T.	—	2	2	T.	—	2	2	T.	—	2	—	—	—	—
Brail-Peek Legs	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—
Falls	2	S.	7	6	2	S.	7	6	2	S.	6	4	1½	S.	6	4	1½	S.	6	4	1½	S.	6	4	1½	S.	6	4
Throat	3	S.	10	2	3	S.	10	2	2½	S.	9	2	2½	S.	8	2	2	S.	7	2	2	S.	7	2	2	S.	7	2
Middle	2½	S.	9	2	2½	S.	9	2	2	S.	7	2	2	S.	7	2	2	S.	7	2	1½	S.	6	2	1½	S.	6	2
Foot	2½	S.	9	2	2½	S.	9	2	2	S.	7	2	2	S.	7	2	2	S.	7	2	1½	S.	6	2	1½	S.	6	2
Strapping	3½ 2½	T.	—	4	3 2½	T.	—	4	2½	T.	—	4	2½	T.	—	4	2	T.	—	4	2	T.	—	4	2	T.	—	4

Lacing Mizen to Yards	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	¾	—	—	—
Mast	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—
Ear-rings	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—
Peek-Haliards	2	*S.	7	1	2	*S.	7	1	1½	*S.	6	1	1½	*S.	6	1	1½	*S.	6	1	1	*S.	5	1	1	*S.	5	1
Sheet	4½	*D.	15	1	4	*D.	14	1	3½	*D.	11	1	3	*D.	11	1	3	*D.	10	1	3	*D.	10	1	2½	S.	9	2
		S.	15	1		S.	14	1		S.	11	1		S.	11	1		S.	10	1		S.	10	1				
Strapping	4½	—	—	—	4	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—
Seizing	1	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tack	3	—	—	—	3	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—
Slings	6	—	—	—	5½	—	—	—	4	—	—	—	4	—	—	—	4	—	—	—	3½	—	—	—	3	—	—	—
Staysail-Stay	5	T.	—	2	4½	T.	—	2	4	T.	—	2	4	T.	—	2	4	T.	—	2	3½	T.	—	2	3	T.	—	2
Collar	4½	T.	—	1	4	T.	—	1	3½	T.	—	1	3	T.	—	1	3	T.	—	1	2½	T.	—	1	2½	T.	—	1
Seizings	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—
Lashing	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—
Laniard	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—
Haliard	3	S.	11	3	3	S.	11	3	2½	S.	8	3	2½	S.	8	3	2	S.	7	3	2	S.	7	3	2	S.	7	3
Sheets	3½	S.	11	2	3½	S.	11	2	2½	S.	8	2	2½	S.	8	2	2	S.	7	2	2	S.	7	2	2	S.	7	1
Tack	2½	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—
Down-Hauler	2½	S.	9	2	2	S.	7	2	1½	S.	6	2	1½	S.	6	2	1½	S.	6	2	1½	S.	6	2	1	S.	5	1
Strapping	3½	—	—	—	3½	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—
	2½	—	—	—	2½	—	—	—																				
Brails	2	*S.	7	2	2	*S.	7	2	2	*S.	7	2	2	*S.	7	2	2	*S	7	2	2	*S.	7	2	2	*S.	7	2
BOOM-DRIVER:																												
Topping Lifts or Runner	5	—	—	—	5	—	—	—	4	—	—	—	4	—	—	—	4	—	—	—	3½	—	—	—	3	—	—	—
Span	5	D.	15	1	5	D.	15	1	4	D.	13	1	4	D.	13	1	3½	D.	13	1	3	D.	12	1	3	D.	10	1
Fall	3	D.	10	2	3	D.	10	2	2½	D.	9	2	2½	D.	9	2	2½	D.	9	2	2	D.	8	2	2	D.	8	2
		*S.	10	2		*S.	10	2		*S.	9	2		*S.	9	2		*S.	9	2		*S.	8	2		*S.	8	2
Strapping	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—
Guy-Pendents	3½	H. & T.	—	4	3½	H. & T.	—	4	3½	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—
Falls	2½	*D.	9	2	2½	*D.	9	2	2	*D.	8	2	2	*D.	8	2	2	*D.	8	2	2	*D.	8	2	2	*D.	7	2
		*S.	9	2		*S.	9	2		*S.	8	2		*S.	8	2		*S.	8	2		*S.	8	2		*S.	7	2
Boom-Sheets	3½	S.	12	2	3	S.	10	2	2½	S.	9	2	2½	S.	9	2	2½	S.	9	2	2½	S.	9	2	2	S.	8	2
Horses	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—

TABLE OF THE DIMENSIONS OF RIGGING, WITH THE SPECIES, SIZE, AND NUMBER, OF BLOCKS, *&c.* CONTINUED.

Names of the standing and running Rigging.	110 to 74 Guns.				64 Guns.				50 to 36 Guns.				32 to 28 Guns.				24 Guns.				22 to 20 Guns.				18 to 14 Guns.			
		Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.		
	In	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N
Sheet Pendent . .	3½	——	—	—	3½	——	—	—	3½	——	—	—	3½	——	—	—	3½	——	—	—	3	——	—	—	3	——	—	—
Falls	2	*D. *S.	8 8	1 1	2	*D. *S.	8 8	1 1	2	*D. *S.	8 8	1 1	2	*D. *S.	8 8	1 1	2	*D. *S.	8 8	1 1	2	*D. *S.	7 7	1 1	2	*D. *S.	7 7	1 1
Haliards or Brails .	2½	S.	9	6	2½	S.	9	6	2½	S.	9	6	2½	S.	9	6	2	S.	8	6	2	S.	8	6	2	S.	8	6
Lacing to the Yard .	1½	——	—	—	1½	——	—	—	1½	——	—	—	1½	——	—	—	1½	——	—	—	1½	——	—	—	1½	——	—	—
Tack-Tackle .	2	*D. *S.	12 12	1 1	2	*D. *S.	12 12	1 1	2	*D. *S.	10 10	1 1	2	*D. *S.	10 10	1 1	1½	*D. *S.	10 10	1 1	1½	*D. *S.	8 8	1 1	1½	*D. *S.	7 7	1 1
Down Hauler .	2½	——	—	—	2	——	—	—	2	——	—	—	2	——	—	—	2	——	—	—	1½	——	—	—	1½	——	—	—
Lashing . . .	¾	——	—	—	¾	——	—	—	¾	——	—	—	¾	——	—	—	¾	——	—	—	¾	——	—	—	¾	——	—	—
CROSS-JACK YARD.																												
Truss-Pendents . .	5	T.	—	2	4	T.	—	2	3½	T.	—	2	3	T.	—	2	3	T.	—	2	3	T.	—	2	—	——	—	—
Falls	2½	*L. t. *S.	18 9	1 1	2½	*L. t. *S.	18 9	1 1	2	*L. t. *S.	15 8	1 1	2	*L. t. *S.	15 8	1 1	1½	*L. t. *S.	14 6	1 1	2	*S.	7	2	—	——	—	—
Strapping . . .	3	——	—	—	3	——	—	—	2½	——	—	—	2½	——	—	—	2½	——	—	—	2	——	—	—	—	——	—	—
Seizing	¾	——	—	—	¾	——	—	—	¾	——	—	—	¾	——	—	—	—	——	—	—	—	——	—	—	—	——	—	—
Span about the Cap	4	——	—	—	4	——	—	—	3	——	—	—	3	——	—	—	2½	——	—	—	2½	——	—	—	2	——	—	—
Braces	2½	S.	9	2	2½	S.	9	2	2	S.	8	2	2	S.	8	2	2	S.	8	2	1½	S.	6	2	1½	S.	6	2
Pendents . . .	3½	S.	9	2	3½	S.	9	2	3	S.	8	2	2½	S.	8	2	2½	S.	8	2	2	S.	6	2	2	S.	6	2
Preventer . . .	3	——	—	—	3	——	—	—	3	——	—	—	—	——	—	—	—	——	—	—	—	——	—	—	—	——	—	—
Strapping . . .	2½	——	—	—	2	——	—	—	2	——	—	—	2	——	—	—	2	——	—	—	2	——	—	—	2	——	—	—
Lifts, running . .	2½	S.	9	4	2	S.	9	4	2	S.	8	4	2	S.	8	4	2	S.	8	4	2	S	7	4	1½	S.	6	4
Strapping . . .	2½	——	—	—	2	——	—	—	2	——	—	—	2	——	—	—	2	——	—	—	2	——	—	—	1½	——	—	—
Slings	5½	S. do. sc.	16	1	4	S. do. sc.	14	1	3½	S. do. sc.	12	1	3½	S. do. sc.	12	1	3½	S. do. sc.	11	1	3½	S. do. sc.	11	1	3	T.	—	1
Strapping . . .	4	——	—	—	4	——	—	—	3	——	—	—	3	——	—	—	3	——	—	—	3	——	—	—	2½	——	—	—
Seizing . . .	1	——	—	—	1	——	—	—	¾	——	—	—	¾	——	—	—	—	——	—	—	—	——	—	—	—	——	—	—
Lashing . . .	1½	——	—	—	1½	——	—	—	1	——	—	—	1	——	—	—	1	——	—	—	¾	——	—	—	—	——	—	—

MIZEN-TOPMAST.																												
Shrouds	[illegible]	D. E.	8	8	4	D. E.	8	8	3½	D E.	6	6	3½	D.E.	6	6	3½	D.E.	6	6	3	D·E.	5	6	2½	D·E.	5	6
Seizings . .	Tar	red Line	—	—	—	——	—	—	—	——	—	—	—	——	—	—	—	——	—	—	—	——	—	—	—	——	—	—
Laniards . . .	[illegible]	——	—	—	2½	——	—	—	2	——	—	—	2	——	—	—	2	——	—	—	1½	——	—	—	1½	——	—	—
Ratline	1	——	—	—	1	——	—	—	1	——	—	—	1	——	—	—	1	——	—	—	¾	——	—	—	¾	——	—	—
Standing-Backstays		D. E.	8	4	4	D. E.	8	4	3½	D.E.	6	2	3½	D.E.	6	2	3½	D.E.	6	2	3	D.E.	5	2	2½	D.E.	5	2
Seizing . . .	Tar	red Line	—	—	—	——	—	—	—	——	—	—	—	——	—	—	—	——	—	—	—	——	—	—	—	——	—	—
Laniards . .	2½	——	—	—	2½	——	—	—	2	——	—	—	2	——	—	—	2	——	—	—	1½	——	—	—	1½	——	—	—
Stay cabled 4Strands	5	——	—	—	4½	——	—	—	4	——	—	—	4	——	—	—	4	——	—	—	3½	——	—	—	3	——	—	—
Laniard	2	T.	—	2	2	T.	—	2	2	T.	—	2	2	T.	—	2	1½	T.	—	2	1½	T.	—	2	1½	T.	—	2
Collar	4	S.	14	1	3½	S.	13	1	3	S.	12	1	3	S.	11	1	3	S.	10	1	2½	T.	—	1	2	T.	—	1
Seizing & Lashing	1	——	—	—	¾	——	—	—	¾	——	—	—	¾	——	—	—	¾	——	—	—	—	——	—	—	—	——	—	—
Flagstaff-Stay . .	2	T.	—	1	1½	T.	—	1	1½	——	—	—	—	——	—	—	—	——	—	—	—	——	—	—	—	——	—	—
Haliards. . . .	1½	——	—	—	1½	——	—	—	1	——	—	—	1	——	—	—	¾	——	—	—	¾	——	—	—	¾	——	—	—
Shifting Backstays	4½	T.	—	1	4	T.	—	1	3½	T.	—	1	3½	T.	—	1	3½	T.	—	1	3	T.	—	1	2½	T.	—	1
Tackle . . .	2½	*D. *S.	9 9	1 1	2	*D. *S.	8 8	1 1	2	*D. *S.	7 7	1 1	2	*D. *S.	7 7	1 1	2	*D. *S.	7 7	1 1	1½	*S.	6	2	1½	*S.	6	2
Strapping . . .	3	——	—	—	2½	——	—	—	2½	——	—	—	2½	——	—	—	2½	——	—	—	2	——	—	—	2	——	—	—
Futtock-Shrouds . .	4½	*Pl. d. e.	8	8	4	*Pl. d. e.	8	8	3½	*Pl. d. e.	6	6	3½	*Pl. d.e.	6	6	3½	*Pl. d. e.	6	6	3	*Pl. d. e.	5	6	2½	*Pl. d. e.	5	6
Seizing	Tar	red Line	—	—	—	——	—	—	—	——	—	—	—	——	—	—	—	——	—	—	—	——	—	—	—	——	—	—
Ratlines. . . .	1	——	—	—	1	——	—	—	1	——	—	—	1	——	—	—	1	——	—	—	1	——	—	—	¾	——	—	—
Top-Rope Pendents	5	*S. I. bd.	16	1	5	*S. I. bd.	14	1	4½	*S. I. bd.	12	1	4½	*S. I. bd.	12	1	4	*S. I. bd.	12	1	4	*S. I. bd.	12	1	4	*S. I. bd.	12	1
Falls	3	D. I. bd.	12	2	3	D. I. bd.	12	2	2½	D. I. bd.	10	2	2½	D. I. bd.	10	2	2½	D. I. bd.	10	2	2½	D. I. bd.	10	2	2½	D. I. bd.	10	2
MIZEN-TOP SAIL YARD.																												
Tie	4	S. do. sc.	13	1	3½	S. do. sc.	12	1	3½	S. do. sc.	12	1	3½	S. do. sc.	12	1	3	S. do. sc.	10	1	3	S. do. sc.	10	1	3	S. do. sc.	10	1
Haliard . . .	2½	D. th. c. *S. th. c.	12 12	1 1	2½	D. th. c. *S. th. c.	12 12	1 1	2	D. th. c. *S. th. c.	10 10	1 1	2	D. th. c. *S. th. c.	10 10	1 1	2	D. th. c. *S. th. c.	10 10	1 1	2	*S. th.c	10	2 1	2	*S. th.c	8	2 1
Strapping . . .	3½	——	—	—	3½	——	—	—	3	——	—	—	3	——	—	—	3	——	—	—	3	——	—	—	2½	——	—	—
Lashing. . . .	1	——	—	—	1	——	—	—	¾	——	—	—	¾	——	—	—	¾	——	—	—	—	——	—	—	—	——	—	—
Horses	3	——	—	—	3	——	—	—	2½	——	—	—	2½	——	—	—	2½	——	—	—	2½	——	—	—	2	——	—	—
Stirrups . : .	2½	T.	—	4	2½	T.	—	4	2	T.	—	4	2	T.	—	4	2	T.	—	2	—	——	—	—	—	——	—	—
Braces	2½	S.	9	2	2½	S.	9	2	2	S.	7	2	2	S.	7	2	1½	S.	6	2	1½	S.	6	2	1½	S.	5	2
Pendents . . .	3	S.	9	2	3	S.	9	2	2½	S.	7	2	2½	S.	7	2	2	S.	6	2	2	S.	6	2	1½	——	—	—
Strapping . .	2½	——	—	—	2½	——	—	—	2	——	—	—	2	——	—	—	1½	——	—	—	1½	——	—	—	—	——	—	—

TABLE OF THE DIMENSIONS OF RIGGING, WITH THE SPECIES, SIZE, AND NUMBER, OF BLOCKS, *&c.* CONTINUED.

Names of the standing and running rigging.	110 to 74 Guns.				64 Guns.				50 to 36 Guns.				32 to 28 Guns.				24 Guns.				22 to 20 Guns.				18 to 14 Guns.			
		Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.		
	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	I	N
Cat-Falls . . .	6	Tr. I. bd. Br. sh.	26	2	5	Tr. I. bd. Br. sh.	22	2	4	Tr. I. bd Br. sh.	18	2	4	Tr. I. bd. Br. sh.	16	2	3½	Tr.I.b.c.	15	2	3	Tr.I.b.c.	15	2	3	D. I.b.c.	14	2
		S.	10	2		S.	10	2		S.	8	2		S.	8	2		S.	8	2		S.	8	2				
Lanniards . .		T.	—	4		T.	—	4		T.	—	4		T.	—	4		T.	—	4		T.	—	4				
	3	S. Large			3	S. Large			2	S. Large			2	S. Large			2	S. Large			2	S. Large			2	——	—	—
		Ragged	—	2		Ragged	—	2		Ragged	—	2		Ragged	—	2		Ragged	—	2		Ragged	—	2				
		Staples				Staples.				Staples.				Staples.				Staples.				Staples.						
Stoppers . . .	5	——	—	—	5	——	—	—	4	——	—	—	3½	——	—	—	3½	——	—	—	2½	——	—	—	2	——	—	—
Guys. Mast-head	9½	——	—	—	8	——	—	—	7½	——	—	—	6½	——	—	—	5½	——	—	—	5½	——	—	—	5	——	—	—
Guys. Fore . .	9½	——	—	—	8	——	—	—	7½	——	—	—	6½	——	—	—	5½	——	—	—	5½	——	—	—	5	——	—	—
Guys. After . .	6	——	—	—	5	——	—	—	4½	——	—	—	3½	——	—	—	3½	——	—	—	3½	——	—	—	3	——	—	—
†Fish Tackle Pendts.	10	*S. c.	28	1	9	*S. c.	26	1	7½	*S. c.	20	1	7	*S. c.	18	1	6	*S. c.	16	1	6	*S. c.	15	1	5½	*S. c.	15	1
Fall	4½	L. t.	38	2	4	L. t.	36	2	3½	L. t.	32	2	3½	L. t.	30	2	3½	L. t.	28	2	3	L. t.	26	26	3	L. t.	24	1
																										S.	14	1
Strapping . .	7	——	—	—	6	——	—	—	5	——	—	—	4½	——	—	—	4	——	—	—	3½	——	—	—	3½	——	—	—
	6½	——	—	—	5½	——	—	—	4½	——	—	—																
Seizing . . .	1½	——	—	—	1½	——	—	—	1½	——	—	—																
	1	——	—	—	1	——	—	—	1	——	—	—	1	——	—	—	¾	——	—	—	¾	——	—	—	¾	——	—	—
Lanniards . . .	3	——	—	—	3	——	—	—	2½	——	—	—	2½	——	—	—	2½	——	—	—	2	——	—	—	1½	——	—	—
Anchor-Stock Tack	3	*D.	12	1	3	*D.	12	1	2½	*D.	9	1	2½	*D.	9	1	2½	*D.	9	1	2	*D.	8	1	2	*D.	8	1
Anchor-Stock Fall		*S.	12	1		*S.	12	1		*S.	9	1		*S.	9	1		*S.	9	1		*S.	8	1		*S.	8	1
Bill-Pendents . .	5½	T.	—	2	5	T.	—	2	4½	T.	—	2	4	T.	—	2	4	T.	—	2	3½	T.	—	2	3	——	—	—
Strapping . . .	4	H.	—	1	4	H.	—	1	3	H.	—	1	3	H.	—	1	3	H.	—	1	2½	H.	—	1	2½	——	—	—
Seizing	¾	——	—	—	¾	——	—	—	¾	——	—	—	—	——	—	—	—	——	—	—	—	——	—	—	—	——	—	—
Stoppers, Sheet Anchor	9½	——	—	—	8	——	—	—	6½	——	—	—	6	——	—	—	5½	——	—	—	5	——	—	—	5	——	—	—
Best Bower . .	9½	——	—	—	8	——	—	—	6½	——	—	—	6	——	—	—	5½	——	—	—	5	——	—	—	5	——	—	—

† The Hook to the Fish Tackle-Pendent is to be large enough as with ease to hook the ring of the Anchor.

Small Bower	9½	—	—	—	8	—	—	—	6½	—	—	—	6	—	—	—	5½	—	—	—	5	—	—	—	5	—	—	—
Spare	9½	—	—	—	8	—	—	—	6½	—	—	—	6	—	—	—	5½	—	—	—	5	—	—	—	5	—	—	—
Seizings	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Wing cabled	9	—	—	—	8	—	—	—	6½	—	—	—	6	—	—	—	5½	—	—	—	5	—	—	—	5	—	—	—
Dog	8	—	—	—	7½	—	—	—	6	—	—	—	6	—	—	—	5½	—	—	—	5	—	—	—	5	—	—	—
Seizing	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Stream Anchor	5½	—	—	—	4½	—	—	—	4	—	—	—	4	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—
Kedge	4½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—
Deck & Bit cabled	12	T.	—	13	10½	T.	—	12	8½	T.	—	10	8	T.	—	10	7½	T.	—	10	7½	T.	—	10	7	T.	—	10
Laniards	3½	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—
Seizing	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—
	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—												
Stoppers Preventer	9½	—	—	—	9	—	—	—	7	—	—	—	7	—	—	—	6½	—	—	—	6	—	—	—	5	—	—	—
Ditto	9	—	—	—	8	—	—	—	6½	—	—	—	6½	—	—	—	6	—	—	—	5½	—	—	—	5	—	—	—
Ditto	8	—	—	—	7	—	—	—	6	—	—	—	6	—	—	—	5½	—	—	—	5	—	—	—	4½	—	—	—
Ditto	7½	—	—	—	6½	—	—	—	5½	—	—	—	5½	—	—	—	5	—	—	—	4½	—	—	—	4	—	—	—
Ditto	7	—	—	—	6	—	—	—	5	—	—	—	5	—	—	—	4½	—	—	—	4	—	—	—	3½	—	—	—
Ditto	6½	—	—	—	5½	—	—	—	4	—	—	—	4	—	—	—	4	—	—	—	3½	—	—	—	—	—	—	—
Ditto	5½	—	—	—	5	—	—	—	3½	—	—	—	3½	—	—	—	3½	—	—	—	3	—	—	—	—	—	—	—
Ditto	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ditto	4½	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Shk. PaintersSheet Anchor, cabled	9	—	—	—	7½	—	—	—	6	—	—	—	5½	—	—	—	5	—	—	—	4½	—	—	—	4½	—	—	—
Best Bower	8	T.	—	1	7½	T.	—	1	6	T.	—	1	5½	T.	—	1	5	T.	—	1	4½	T.	—	1	4½	T.	—	1
Small Bower	8	T.	—	1	7½	T.	—	1	6	T.	—	1	5½	T.	—	1	5	T.	—	1	4½	T.	—	1	4½	T.	—	1
Spare, cabled	9	—	—	—	7½	—	—	—	6	—	—	—	5½	—	—	—	5	—	—	—	4½	—	—	—	4½	—	—	—
Seizing	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Buoy-Ropes Sheet-Anchor, cabled	8½	—	—	—	7½	—	—	—	6	—	—	—	5½	—	—	—	4½	—	—	—	4½	—	—	—	4	—	—	—
Best Bower, cabled	8½	—	—	—	7½	—	—	—	6	—	—	—	5½	—	—	—	4½	—	—	—	4½	—	—	—	4	—	—	—
Small Bower, cabd.	8½	—	—	—	7½	—	—	—	6	—	—	—	5½	—	—	—	4½	—	—	—	4½	—	—	—	4	—	—	—
Seizing	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—
Strm. Anchor cab.	5	—	—	—	4½	—	—	—	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—
Kedge cabled	4	—	—	—	4	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2½	—	—	—

TABLE OF THE DIMENSIONS OF RIGGING, WITH THE SPECIES, SIZE, AND NUMBER, OF BLOCKS, *&c.* CONTINUED.

Names of the standing and running rigging.	110 to 74 Guns.				64 Guns.				50 to 36 Guns.				32 to 28 Guns.				24 Guns.				22 to 20 Guns.				18 to 14 Guns.			
		Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.		
	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N
Ropes, Davit . .	3½	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—
Bell	3½	T.	—	1	3	T.	—	1	2½	T.	—	1	2	T.	—	1	2	T.	—	1	2	T.	—	1	2	T.	—	1
Bucket	La	shing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Swab	3½	S.	12	2	3	S.	11	2	3	S.	10	2	3	S.	10	2	3	S.	10	2	3	S.	10	2	2½	S.	9	2
Entering . . .	3½	—	—	—	3½	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—
Passing . . .	5	T.	—	2	5	T.	—	2	4	T.	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Laniard . . .	2½	—	—	—	2½	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Slip	5½	—	—	—	3	—	—	—	3½	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Quarters, Poop, & Stantions, in the Waste .	3½	T.	—	16	3½	T.	—	16	3½	T.	—	16	3	T.	—	14	3	T.	—	14	3	T.	—	14	2½	T.	—	14
Fore, Main, & Mizen, Tops	La	shing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Wheel, or Tiller, White . .	4½	S.	14	2	4	S.	13	2	3½	S.	11	2	3½	S.	11	2	3	S.	10	2	3	S.	10	2	3	S.	10	2
Strapping . . .	4½	T.	—	2	4	T.	—	2	3	T.	—	2	3	T.	—	2	3	T.	—	2	3	—	—	—	3	—	—	—
Seizing . . .	1	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puddening of An-	4	Old		yd	4	Old		yd	3½	Old		yd	3	Old		yd	3	Old		yd	3	Old		yd	2½	Old		yd
chors . . .	3	Canvas	—	20	3	Canvas	—	20	2	Canvas	—	20	2	Canvas	—	15	2	Canvas	—	14	2	Canvas	—	14	2	Canvas	—	12
Seizing . . .	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—
Slings, Buoy . .	4	T.	—	6	4	T.	—	6	3½	T.	—	6	3½	T.	—	6	3	T.	—	6	3	T.	—	6	2½	—	—	—
Laniards . . .	3	—	—	—	3	—	—	—	2½	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—
Seizings . . .	1	—	—	—	1	—	—	—	Tar	red Line	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gun	8	—	—	—	8	—	—	—	6½	—	—	—	6	—	—	—	5½	—	—	—	5½	—	—	—	4½	—	—	—
Nut	7	—	—	—	7	—	—	—	5	—	—	—	4½	—	—	—	4	—	—	—	4	—	—	—	3	—	—	—
Butt , ...	5	T.	—	4	5	T.	—	4	5	T.	—	4	5	T.	—	4	5	T.	—	3	5	T.	—	3	5	T.	—	2

Hogshead	4	T.	—	4	4	T.	—	4	4	T.	—	4	4	T.	—	4	4	T.	—	3	4	T.	—	3	4	T.	—	3
Can-Hook	4½	—	—	—	4½	—	—	—	4½	—	—	—	4½	—	—	—	4½	—	—	—	4½	—	—	—	4	—	—	—
Straps for wood Buoys	4	—	—	—	4	—	—	—	3½	—	—	—	3½	—	—	—	3½	—	—	—	3½	—	—	—	3	—	—	—
Swabs	3½	—	—	—	3½	—	—	—	3½	—	—	—	3½	—	—	—	3½	—	—	—	3½	—	—	—	3	—	—	—
Cable-Bends	3	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—
Rudder-Pendts. cab.	7½	T.	—	4	7	T.	—	4	5½	T.	—	4	5	T.	—	4	5	T.	—	4	5	T.	—	4	4	T.	—	4
Laniards	3	—	—	—	2½	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Falls	3½	*L. t.	28	2	3	*L. t.	26	2	3	*L. t.	24	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		*S.	15	2		*S.	13	2		*S.	12	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strapping	4½	—	—	—	4	—	—	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Seizing	¾	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Stern-Ladders 4 Strands	6	—	—	—	6	—	—	—	4½	—	—	—	4	—	—	—	4	—	—	—	4	—	—	—	4	—	—	—
Middle-Rope	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—
Lashing	2	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—
Futtock Staves	8	—	—	—	8	—	—	—	6	—	—	—	5	—	—	—	5	—	—	—	4½	—	—	—	4	—	—	—
	5	—	—	—	5	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	2½	—	—	—
Swifters, for Capstan Bars	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—
Netting	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—
Haliard for Top Lantern	1	S.	5	1	1	S.	5	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ensign	2	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—
Jack	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
For Colours Head-Line	White Line.		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rope-Bands	Marline		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pendent-Slings	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—
Awnings Ridge and Side Ropes	3½	S.	12	3	3½	S.	12	3	3	S.	10	3	3	S.	10	3	3	S.	10	3	3	S.	10	3	2½	S.	9	3
Stops	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—
Crowfeet			34	1			32	1			26	1			26	1			24	1			24	1			23	2
	1	Euphroe	24	1	1	Euphroe	22	1	1	Euphroe	16	1	1	Euphroe	16	1	1	Euphroe	14	1	1	Euphroe	14	1	¾	Euphroe	13	2
			22	1			20	1			14	1			14	1			12	1			12	1			11	1
Haliard	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—

TABLE OF THE DIMENSIONS OF RIGGING, WITH THE SPECIES, SIZE, AND NUMBER, OF BLOCKS, &c. CONTINUED.

Names of the standing and running Rigging.	110 to 74 Guns.				64 Guns.				50 to 56 Guns.				32 to 28 Guns.				24 Guns.				22 to 20 Guns.				18 to 14 Guns.			
		Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.		
	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N
Ridge-Tackle Fall	2½	D.	9	1	2½	D.	9	1	2½	D.	8	1	2½	D.	8	1	2½	D.	7	1	2	D.	7	1	2	D.	7	1
		S.	9	1		S.	9	1		S.	8	1		S.	8	1		S.	7	1		S.	7	1		S.	7	1
For different Uses	—	*Sn.I. bd	24	4	—	*Sn.I. bd	22	4	—	*Sn.I. bd	17	4	—	*Sn.I.bd	16	4	—	*Sn. I.bd	14	4	—	*Sn. I.bd	14	4	—	*Sn. I.bd	12	4
of the Ship . . .	—	Hks c.	16	4	—	Hks c.	15	4	—	Hks c.	13	4	—	Hks c.	13	4	—	Hks c.	12	4	—	Hks c.	11	4	—	Hks c.	10	3
	—		14	4	—		14	4	—		12	4	—		12	4	—		11	4	—		10	4	—		9	3
Strapping . . .	4½	—	—	—	4	—	—	—	4	—	—	—	4	—	—	—	3½	—	—	—	3	—	—	—	3	—	—	—
Seizing . . .	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LONG BOAT'S RIGGING.																												
Burton-Pendents .	4	S.	11	2	4	S.	11	2	3½	S.	9	2	3½	S.	9	2	3	S.	8	2	3	S.	8	2	—	—	—	—
Runner	3	T.	—	2	3	T.	—	2	2½	T.	—	2	2½	T.	—	2	2½	T.	—	2	2½	T.	—	2	—	—	—	—
Falls	2½	*D.	9	2	2½	*D.	9	2	2	*D.	8	2	2	*D.	8	2	2	*D.	8	2	2	*D.	8	2	—	—	—	—
		*S.	9	2		*S.	9	2		*S.	8	2		*S.	8	2		*S.	8	2		*S.	8	2	—	—	—	—
Strapping . . .	3	—	—	—	3	—	—	—	2½	—	—	2	2½	—	—	—	2½	—	—	—	2½	—	—	—	—	—	—	—
Shrouds	4	D. E.	5	4	3½	D. E.	5	4	3	T.	—	4	3	T.	—	4	3	T.	—	4	2½	T.	—	4	—	—	—	—
Laniard	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—
Stay	4½	D. E.	5	1	4	D. E.	5	1	3½	T.	—	1	3½	T.	—	1	3½	T.	—	1	3½	T.	—	1	2	—	—	—
Laniard	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—
Tie	3	S.	9	1	3	S.	9	1	3	S.	9	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Main Haliard . .	2	S.	7	2	2	S.	7	2	1½	S.	6	1	1½	S.	6	1	1½	S.	6	1	1	S.	5	1	1	—	—	—
Outer Haliard . .	2	D. I. bd.	7	1	2	D. I. bd.	7	1	1½	D. I. bd.	6	1	1½	D. I. bd.	6	1	1½	D. I. bd.	6	1	1	D. I. bd.	5	1	—	—	—	—
		*S.	7	1		*S.	7	1		*S.	6	1		*S.	6	1		*S.	6	1		*S.	5	1	—	—	—	—
Sheet	2	D.	8	1	2	D.	8	1	1½	D.	6	1	1½	S.	6	2	1½	S.	6	2	1	S.	5	2	1	—	—	—
		*S.	8	1		*S.	8	1		*S.	6	1		T.	—	1		T.	—	1		T.	—	1	—	—	—	—
Wooden Hoops .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Downhauler . .	1½	S.	5	1	1½	S.	5	1	1	S.	5	1	1	S.	5	1	1	—	—	—	1	—	—	—	—	—	—	—

Strapping	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	—	—	—	—
Topping-Lifts	2½	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	—	—	—	—
Fore-Haliard	2	S.	7	1	2	S.	7	1	2	S.	7	1	2	S.	7	1	1½	—	—	—	1	—	—	—	1	—	—	—
Sheet	2	T.	—	2	2	T.	—	2	2	T.	—	2	2	T.	—	2	1½	T.	—	2	1	—	—	—	1	—	—	—
Tack	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—	—	—	—	—
Bowline	2½	T.	—	1	2½	T.	—	1	2	—	—	—	2	—	—	—	1½	—	—	—	1	—	—	—	—	—	—	—
Jib-Haliard	2	S.	7	2	2	S.	7	2	2	S.	7	1	2	S.	7	1	1½	—	—	—	1	—	—	—	—	—	—	—
		*.	—	1		*.	—	1																				
Sheet	2½	T.	—	4	2½	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—	1	—	—	—	—	—	—	—
Out-Hauler	3	I. Tra-	—	1	2½	I. Tra.	—	1	2	I. Tra.	—	1	2	I. Tra.	—	1	1½	I. Tra.	—	1	1	I. Tra.	—	1	1	—	—	—
In-Hauler	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—
Boat-Rope cabled	9	—	—	—	7½	—	—	—	6½	—	—	—	6	—	—	—	4½	—	—	—	4½	—	—	—	—	—	—	—
Laniard	2½	—	—	—	2½	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	—	—	—	—
Guest-Rope cabled	5	—	—	—	4	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	3	—	—	—	—	—	—	—
Grapnel-Rope cabled	4½	T.	—	1	4	T.	—	1	3½	T.	—	1	3½	T.	—	1	3½	T.	—	1	3½	T.	—	1	3	T.	—	1
Painter	4	T.	—	1	4	T.	—	1	3½	T.	—	1	3½	T.	—	1	3½	T.	—	1	3	T.	—	1	3	T.	—	1
Sternfast	3½	T.	—	1	3½	T.	—	1	3	T.	—	1	3	T.	—	1	2	T.	—	1	2	T.	—	1	—	—	—	—
Fenders cabled	6	—	—	—	6	—	—	—	5	—	—	—	4	—	—	—	4	—	—	—	3½	—	—	—	3	—	—	—
Laniards	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—
Rudder-Laniards	2	—	—	—	2	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—
PINNACE.																												
Haliards Main	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	—	—	—	—
Fore	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	—	—	—	—
Sheets	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	—	—	—	—
Grapnel-Rope cabled	3½	T.	—	1	3½	T.	—	1	3½	T.	—	1	3½	T.	—	1	3½	T.	—	1	3½	T.	—	1	—	—	—	—
Painter	3½	T.	—	1	3½	T.	—	1	3½	T.	—	1	3½	T.	—	1	3½	T.	—	1	3½	T.	—	1	—	—	—	—
Sternfast	2½	T.	—	1	2½	T.	—	1	2	T.	—	1	2	T.	—	1	2	T.	—	1	2	T.	—	1	—	—	—	—
Slings	5½	H. & T.	8	12	5½	H. & T.	8	12	5	H. & T.	4	6	5	H. & T.	4	6	5	H. & T.	4	6	5	H. & T.	4	6	—	—	—	—
Seizings	1	—	—	—	1	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	¾	—	—	—	—	—	—	—
Rudder-Laniards	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—

TABLE OF THE DIMENSIONS OF RIGGING, WITH THE SPECIES, SIZE, AND NUMBER, OF BLOCKS, &c. CONTINUED.

Names of the standing and running Rigging.	110 to 74 Guns.				64 Guns				50 to 36 Guns.				32 to 28 Guns.				24 Guns.				22 to 20 Guns.				18 to 14 Guns.			
		Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.				Blocks, &c.		
	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N	In.	Species.	In	N
YAWL, OR CUTTER, OR PINNACLE.																												
Main & Fore Hallards (if Cutters)	2	I. Tra.	—	2	2	I. Tra.	—	2	2	I. Tra.	—	2	1	I. Tra.	—	2	1	—	—	—	1	—	—	—	1½	—	—	—
Main } Sheets	2½	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	1½	—	—	—
Fore }	2½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1½	—	—	—	1	—	—	—				
Grapnel-Rope cabled	3½	T.	—	1	3½	T.	—	1	3½	T.	—	1	3½	T.	—	1	3½	T.	—	1	3½	T.	—	1	3½	T.	—	1
Painter	3½	T.	—	1	3½	T.	—	1	3½	T.	—	1	3½	T.	—	1	3½	T.	—	1	3½	T.	—	1	3½	T.	—	1
Sternfast	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	T.	—	1
Slings	5½	H. & T.	8	12	5½	H. & T.	8	12	5½	H. & T.	8	12	5½	H. & T.	4	6	5½	H. & T.	4	6	5½	H. & T.	4	6	4½	H. & T.	4	6
Seizings . . .	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	¾	—	—	—
Rudder-Laniards .	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—

TABLES

OF THE

QUANTITIES AND DIMENSIONS

OF THE

Standing and Running Rigging

OF

BRIGS, CUTTERS, SLOOPS, AND KETCHES,

A TABLE

OF THE

QUANTITIES AND DIMENSIONS OF THE STANDING AND RUNNING RIGGING

OF

BRIGS OF 160 TONS.

Names of the standing and running Rigging.	Inch	Fath in Len.	Blocks, &c.		
			Species.	In	N
BOWSPRIT.					
Gammonings	4	26	—	—	—
Shrouds fine	4	8	—	—	—
Collars fine , . .	3	2½	T.	—	2
Seizings	—	½	of a tarr'd	Li	ne
Lashings	¼	5	—	—	—
Laniards fine . . .	2	7	—	—	—
Bobstays cabled fine	4	11½	T.	—	2
Collars fine . - .	4	3	—	—	—
Seizing	—	½	of a tarr'd	Li	ne
Lashings	¼	6	—	—	—
Laniards fine . . .	2	9	—	—	—
Horses	2½	9	T.	—	6
Straps	2	2	T.	—	4
Laniards	1	4	—	—	—
SPRITSAIL.					
Horses	2	6	—	—	—
Braces	2	30	D.	7	4
Strapping	2½	4	—	—	—

Names of the standing and running Rigging.	Inch	Fath in Len.	Blocks, &c.		
			Species.	In	N
Lifts	1½	20	S.	6	2
Beckets.	1½	2	—	—	—
Strapping	1½	12	—	—	—
Standing	2	3	T.	—	4
Straps	2	1½	—	—	—
Laniards. . . .	¾	3	—	—	—
Haliard	1½	12	S.	6	2
Strapping	1½	1	—	—	—
Slings	3	3	—	—	—
Seizing & Racking	¾	5	—	—	—
Clue-lines	1½	16	St. bd.	6	2
Strapping . . .	1½	1½	—	—	—
Bunt-Lines	1	14	—	—	—
Strapping	1½	1½	—	—	—
Ear-Rings	¾	10	—	—	—
Sheets cabled single	2½	22	—	—	—
JIB.					
Horses	2½	9	—	—	—
Guy-Pendents . . .	2½	20	—	—	—

Names of the standing and running Rigging.	Inch	Fath in Len.	Blocks, &c.		
			Species.	In	N
Out-Hauler	2	12	—	—	—
Stay	2¼	14	—	—	—
Strapping , . . .	2¼	1	—	—	—
Tackle-Fall . . .	1½	12	S.	6	2
Strapping	1½	1	—	—	—
Haliard	2	22	S.	7	1
Strapping	2	1	—	—	—
Down-Hauler . . .	1½	18	S.	6	1
Sheets single . . .	2½	18	S.	8	2
FORE-MAST.					
Girdlines	2	35	S.	8	2
Strapping	2	1	—	—	—
Lashings	¼	8	—	—	—
Pendents of Tackle cabled fine	6	5½	S. c. T.	13 —	2 2
Strapping	4	2	—	—	—
Seizing	¼	6	—	—	—
Runners of Tackles	4	14	*D.	10	2
Strapping	3	2	—	—	—

TABLES OF THE QUANTITIES AND DIMENSIONS OF THE STANDING AND RUNNING RIGGING OF BRIGS.

Names of the standing and running Rigging.	In.	Fath in Len.	Blocks, &c. Species.	In	N
Falls of Tackles	2½	48	*S. th. c.	10 10	2 2
Strapping	3	5	——	—	—
Shrouds cabled, fine	5	47	D. E.	8	8
Seizing, Eye	¾	——	——	—	—
Throat	¾	60	——	—	—
Laniards, fine	3	40	——	—	—
Ratling	1	60	——	—	—
Stay cabled fine 4 Str.	7½	7½	H.	10	1
Seizings	¾	8	——	—	—
Laniard, fine	3	7	——	—	—
Collar cabled 4Str. fine double	4	3½	H.	10	1
Seizings	¾	6	——	—	—
Lashing	1½	4	——	—	—
Preventer-Stay cabled 4 Strands, fine	5½	7½	H.	8	1
Laniard, fine	2½	7	——	—	—
Collar cabled 4 Str. fine double	3½	3½	H. d. sc.	8	1
Catharpin-Legs	3	6	——	—	—
Seizings	¾	25	——	—	—
Crowfoot for the Top	¾	40	Euphroe	12	1
Tackle	1	4	——	—	—
Strapping	1	1	——	—	—
Jeers. Tie	5	10	S. th. c.	14	2
Jeers. Falls	2½	40	*D. co.	9	4

Names of the standing and running Rigging.	In.	Fath in Len.	Blocks, &c. Species	In	N
Strapping	2½	1	——	—	—
Lashing at the Mast-Head	2	16	——	—	—
Horses	3	7½	T.	—	2
Stirrups	2	2	T.	—	2
Laniards	¾	2	——	—	—
Yard-Tackle-Pendents.	4½	6	D. th. c.	10	2
Falls	2½	48	*S. th. c. S.	11 9	2 2
Strapping	4	2	——	—	—
Braces	2½	44	S.	8	4
Pendents	3	4	S.	8	2
Preventer	2½	5	——	—	—
Strapping	2½	3	——	—	—
Lifts	2	40	S.	7	4
Span for the Cap	3	3	——	—	—
Short Span	2½	1	——	—	—
Strapping	2½	3	——	—	—
Truss-Pendents	4	9	T.	—	4
Falls	1½	26	*D. *S.	6 6	2 2
Strapping	2	3	——	—	—
Eye-Seizings	¾	8	——	—	—
Puddening the Yard	4	4	——	—	—
Clue-Garnets	2	34	S. S. st. bd.	8 8	4 2
Straps about the Yard	2	4	——	—	—
Strapping	2	1	——	—	—

Names of the standing and running Rigging.	In.	Fath in Len.	Blocks, &c. Species.	In	N
Buntline-Legs	1½	28	D.	6	4
Falls	1½	20	S.	6	6
Strapping	2	7	——	—	—
Leechline-Legs.	1½	26	S.	6	6
Falls	1½	26	——	—	—
Strapping	1½	4	——	—	—
Slablines	1½	12	S.	5	1
Bowlines	2½	28	S.	9	2
Bridles	2½	3	——	—	—
Strapping	3	2	——	—	—
Lashing	1	4	——	—	—
Ear-Ring	1	20	——	—	—
Sheets cabled	3	36	S. c.	11	2
Strapping	3	2½	——	—	—
Seizing	¾	7	——	—	—
Tacks taper and cabled	4	22	——	—	—
Strapping	3	3	——	—	—
Seizing	¾	6	——	—	—
Studdingsail Hal. Inner	1½	25	S.	7	6
Outer	2	42	S.	7	4
Sheets	1½	7	——	—	—
Tacks	2	32	S.	7	2
Strapping	2	10	——	—	—
FORE-TOPMAST.					
Burton-Pendents	2½	4	H.	—	2
Falls	1½	30	*S.	6 6	2 2
Strapping	2	2	——	—	—

TABLE OF THE QUANTITIES AND DIMENSIONS OF THE STANDING AND RUNNING RIGGING OF BRIGS.

Names of the standing and running Rigging.	In.	Fath in Len.	Blocks, &c.		
			Species.	In	N
Shrouds, fine . . .	3½	28	D. E	6	6
Seizings, Eye . .	—	½	of a tar'd Line		
Throat .	—	1	Tar'd Line		—
End . .					
Laniards, fine . .	2	24	—	—	—
Ratling	¾	35	—	—	—
Standing Backsts. fine	3½	38	D. E.	6	4
Seizings, Eye . .	—	½	of a tar'd Line		
Throat .	—	1	Tar'd Line		—
End . .					
Laniards, fine . .	2	16	—	—	—
Stay cabled 4 Str. fine	4	13	—	—	—
Collar, fine . . .	3	2½	S.	12	1
Tackle	2	8	S.	7	2
Strapping	3	1½	—	—	—
Seizing	¾	7	—	—	—
Shifting-Backstays, fine	3½	9½	—	—	—
Tackles . . .	1½	8	*D.	6	1
			*S.	6	1
Strapping	2	1	—	—	—
Futtock-Shrouds, fine	3½	11	*Fut. pla	6	6
Seizing Upper .	¾	20	—	—	—
Lower .					
Ratling	1	10	—	—	—
Top Rope-Pendts. fine	4½	11	S. I. bd. c.	13	1
Falls	2½	30	D. I. b.	11	2
Tie	3½	10	S. do. co.	11	1
Strapping	3½	1	T.	—	1

Names of the standing and running Rigging.	In.	Fath in Len.	Blocks, &c.		
			Species.	In	N
Lashers at the Mast-Head	1	7	—	—	—
Yard	¼	3	—	—	—
Haliards	2	32	D. th..c.	10	1
			*S. th. c.	10	1
Strapping	3	2½	—	—	—
Horses	2½	5½	—	—	—
Braces	2	44	S.	7	4
Pendents	2½	4½	S.	7	2
Strapping	2	3½	—	—	—
Lifts	2	34	Sis.	14	2
			S.	7	4
Beckets	2	2	—	—	—
Strapping	2	4	—	—	—
Parral-Ropes . . .	2	7	Par.	11	1
Racking & Seizing	—	½	of a tar'd Line		
Clue-Lines . . .	2	44	S. st. bd.	7	4
			S.	7	2
Strapping	2	4	—	—	—
Bunt-Lines	1½	30	S.	6	4
Strapping	1½	1½	—	—	—
Leech-Lines	1	13	S.	5	2
Strapping	1	1	— —	—	—
Bow-Lines	2	32	S.	7	2
Bridles	2	5	T.	—	6
Strapping	2	1½	—	—	—
Lashing	¼	5	—	—	—
Reef-Tackle Pendents	2	22	*S.	6	4
Falls	1	28	—	—	—

Names of the standing and running Rigging.	In.	Fath in Len.	Blocks, &c.		
			Species	In	N
Strapping	1½	1	—	—	—
Ear-Rings	¾	30	—	—	—
Sheets	3½	26	S. Sho.	12	2
			¼ do. thk. & th.	12	2
Straps for Sheet Blocks	4	3	—	—	—
Quarter Blocks .	3	5	—	—	—
Lashers for Quarter Blocks . . .	1	5	—	—	—
Seizings	¾	12	—	—	—
Span	2½	3	—	—	—
Slings	2½	4½	—	—	—
Staysail-Stay . . .	2½	13	S.	9	1
Tackle	1	6	S.	5	2
Haliard	2	22	S.	7	1
Strapping	2	1	—	—	—
Sheets	2½	16	S	8	2
Strapping	2½	1½	—	—	—
Out-Hauler . . .	1½	8	S.	6	1
Down-Hauler . .	1	14	S.	5	1
Strapping	1	½	—	—	—
Studdingsail-Haliards	2	45	S.	7	6
Sheets	1½	9	S.	7	2
Tacks	2	40	S.	7	2
Down-Haulers . .	¾	30	T.	—	6
Tails and Straps . .	2	10	—	—	—

TABLE OF THE QUANTITIES AND DIMENSIONS OF THE STANDING AND RUNNING RIGGING OF BRIGS.

Names of the standing and running Rigging.	In.	Fath in Len.	Blocks, &c.		
			Species.	In	N
FORE-TOPGALLANT-MAST.					
Shrouds	2	32	T.	—	8
Laniards	¾	8	——	—	—
Standing Backstays	2	24	T.	—	2
Laniards	¾	6	——	—	—
Stay	2½	19	T.	—	1
Strapping	2	½	——	—	—
Flagstaff-Haliards	¾	18	——	—	—
Tie	2	9	——	—	—
Haliard	1½	14	S.	5	2
Strapping	1½	1½	——	—	—
Horses	1½	4½	——	—	—
Braces	1	42	S.	5	4
Strapping	1	1	T.	—	2
Lifts single	1½	22	T.	—	2
Parral-Ropes	1	2½	Par.	6	1
Clue-Lines	1	34	S.	5	4
Strapping	1	1	——	—	—
Bow-Lines	1	42	T.	—	6
Bridles	1	2	——	—	—
Ear-Rings	——	½ of a tarr'd Line			
Studdingsail-Haliards	1½	40	——	—	—
Sheets	1	12	——	—	—
Tacks	1½	34	——	—	—
Down-Haulers	¾	13	——	—	—
Royal Haliards	2	28	——	—	—

Names of the standing and running Rigging.	In.	Fath in Len.	Blocks, &c.		
			Species.	In	N
MAIN-MAST.					
Girt Lines	2½	44	S.	8	2
Strapping	2	1	——	—	—
Lashings	¾	8	——	—	—
Pendents of Tackle cabled, fine	5	7	S. c.	3	2
Strapping	4	2	——	—	—
Seizing	¾	6	——	—	—
Runners of Tackles	4	16	*D.th.c.	10	2
Strapping	3	2	——	—	—
Falls of Tackles	2½	50	*S. th. c.	10	2
Strapping	3	5	——	—	—
Shrouds cabled, fine	5	70	D. E.	8	10
Throat	¾	40	——	—	—
End	¾	40	——	—	—
Laniards, fine	3	50	——	—	—
Ratling	1	85	——	—	—
Stay cabled 4 Str. fine	8	11½	H.	12	1
Seizing	1	10	——	—	—
Laniards, fine	3	9	——	—	—
Collar cab. 4 Str. fine	6	4	H.	12	1
Worming	¾	25	——	—	—
Seizing	1	10	——	—	—
Lashing	2½	9	——	—	—
Catharpin-Legs	3	7	——	—	—
Seizings	¾	25	——	—	—
Stay-Tackle-Pendents	4	3	D. th. c.	11	1

Names of the standing and running Rigging.	In.	Fath in Len.	Blocks, &c.		
			Species.	In	N
Falls	2½	28	*S. th. c.	11 9	1 1
Strapping	3	2½	T.	—	1
Seizing	¾	8	——	—	—
Lashing	1	7	——	—	—
Fore-Stay Tackle-Fall	2	28	*D.th.c. *S. th. c.	11 11 9	1 1 1
Strapping	3	2½	——	—	—
Seizing	¾	8	——	—	—
Crowfoot for the Top	¾	50	Euphroe	14	1
Tackle	1	4	——	—	—
Strapping	1	1	T.	—	2
Jeers. Tie	3	34	D.	11	1
Falls			S.	11	2
Strapping	3½	10	——	—	—
Lashers to the Mast Head	2	18	——	—	—
Yard	1½	4	——	—	—
Horses	2½	8	T.	—	2
Yard-Tackle-Pendents	4½	6½	*D. th.c.	10	2
Falls	2½	54	*S. th. c. S.	11 9	2 2
Straps	4	2½	——	—	—
Strapping	3	3	——	—	—
Braces	2	38	S. c.	7	4
Pendents	2½	5	S. c.	7	2
Strapping	2½	2½	——	—	—

TABLE OF THE QUANTITIES AND DIMENSIONS OF THE STANDING AND RUNNING RIGGING OF BRIGS.

Names of the standing and running Rigging.	In.	Fath in Len.	Blocks, &c.		
			Species.	In	N
Lifts	2	46	S	7	4
Span for the Cap	2½	3	——	—	—
Short Span	2½	1	——	—	—
Strapping	2	3	——	—	—
Truss-Pendents	4	11	T.	—	4
Falls	1½	30	*D.	6	2
			*S.	6	2
Strapping	4	7½	Horse down the Mast D.E.	7	1
Eye-Seizings	3	2	Strap D.E	7	1
Laniards	2	4	——	—	—
Seizings	¼	6	——	—	—
Sheets cabled	3	25	S.	11	2
Strapping	3½	3	——	—	—
Luff Tackles	2½	40	*D.	10	2
			*S.	10	2
Strapping	2½	4	——	—	—
Staysail-Stay	4	11½	T.	—	2
Collar	3	2	——	—	—
Seizings	¼	6	——	—	—
Laniard	1	2	——	—	—
Haliard	2	21	*S.	7	3
Sheets	2½	7	*S.	7	2
Tacks	2½	2	——	—	—
Down-Hauler	1	10	S.	5	1
Strapping	2	3	——	—	—

Names of the standing and running Rigging.	In.	Fath in Len.	Blocks, &c.		
			Species.	In	N
Studdingsail-Haliards, Inner	2	34	S.	9	6
Outer	2½	58	S.	9	4
Sheets	2	14	——	—	—
Tacks	2½	32	S.	9	2
Strapping	2½	12	——	—	—
Boom-Guy-Pendents	4½	7	T.	—	1
Tackle-Fall	2½	20	*D.	10	1
			*S.	10	1
Ditto	1½	5	*D.	6	2
Tricing-Line	1½	22	S.	6	2
Peek-Line	1	18	S.	5	1
Hanks	2½	20	——	—	—
Trucks	——	——	——	—	36
Lacing	1	30	——	—	—
Strapping	2½	3	——	—	—
	1½	3	——	—	—
Gaff-Topping-Lift	1	1 8½	S.I.bd. c.	13	1
Span	4 4	3	T.	—	1
Haliards	2½	24	D.	9	1
			*S.	9	1
Strapping	3½	1½	——	—	—
	2½	2	——	—	—
Tie	4	7½	S. I. bd.	13	1
Haliards	2½	28	D. th.	13	1
			*S. th.	13	2

Names of the standing and running Rigging.	In.	Fath in Len.	Blocks, &c.		
			Species.	In	N
Boom-Topping Lift	4½	16	S. I. bd.	14	1
			S.	11	1
Strapping	3	7	——	—	—
Fall	2	16	D.	8	1
			*S.	8	1
Strapping	3½	3	——	—	—
	3	3	——	—	—
	2	2	——	—	—
MAINTOP-MAST.					
Burton-Pendents	2½	4	T.	—	2
Falls	1½	34	*D.	6	2
			*S.	6	2
Strapping	2	2	——	—	—
Shrouds, fine	3½	31	D. E.	6	6
Seizings, Eye	——	½	of a tar'd	Li	ne
Throat End	——	1	Tar'd Li	ne	—
Laniards, fine	2	24	——	—	—
Ratling	¾	40	——	—	—
Standing-Backstays, fine	3½	46	D. E.	6	4
Seizings, Eye,	——	½	of a tar'd	Li	ne
Throat End	——	1	Tar'd Li	ne	—
Laniards, fine	2	16	——	—	—
Stay cabled 4 Str. fine	4	13	——	—	—
Collar, fine	3½	2	S.	12	1
Tackle	2	12	D.	7	1
			*S.	7	1

TABLE OF THE QUANTITIES AND DIMENSIONS OF THE STANDING AND RUNNING RIGGING OF BRIGS.

Names of the standing and running Rigging.	In.	Fath in Len.	Blocks, &c.		
			Species.	In	N
Strapping	3	1½	—	—	—
Seizing	2	1½	—	—	—
Lashing					
Preventer-Stay cabl'd 4 Strands, fine	3½	12	—	—	—
Lashing the Collar	1	6	—	—	—
Shifting Backstays, fine	3½	10½	T.	—	1
Tackles	1½	8	*D.	6	1
			*S.	6	1
Futtock-Shrouds, fine	3½	12	*Pl. d. e.	6	6
Seizings, Upper.	¾	20	—	—	—
Lower					
Ratling	1	12	—	—	—
Top-Rope-Pendents, fine	4½	12	S.l.bd.	13	1
Falls	2½	32	D.l.bd.c.	11	2
Tie	3½	11	S.do.sc.	11	1
Strapping	3½	1	T.	—	1
Lashers at the Mast-Head	1½	7	—	—	—
Yard	¾	3	—	—	—
Haliards	2	34	D.th.c.	10	1
			*S. th. c.	10	1
Strapping	2½	2½	—	—	—
Horses	2½	5½	—	—	—
Braces	2	45	S.	7	4
Pendents	2½	5	S.	7	2
Strapping	2	2½	—	—	—

Names of the standing and running Rigging.	In.	Fath in Len.	Blocks, &c.		
			Species.	In	N
Lifts	2	36	Sis.	14	2
			S.	7	4
Beckets	2	2	—	—	—
Strapping	2	4	—	—	—
Parral-Rope	2	7	Par.	11	1
Racking & Seizing	—	½	of a tarr'd Line		
Clue-Lines	2	48	S. st. bd.	7	4
			S.	7	2
Strapping	2	4	—	—	—
Bunt-Lines	1½	34	S.	6	4
Strapping	1½	1½	—	—	—
Leech-lines	1	14	S.	5	2
Strapping	1	1	—	—	—
Bow-lines	2	34	S.	7	2
Bridles	2	8	T.	—	6
Strapping	2	1	—	—	—
Frapping & Lashing	1	7	—	—	—
Reef-Tackle Pendents	2	24	*S.	6	4
Falls	1½	32	—	—	—
Strapping	1½	1	—	—	—
Ear-rings	¾	30	—	—	—
Sheets	3½	30	Sho. c.	12	2
			¼ D. thk. & th.	12	2
Straps for Sht.-Block	4	3	—	—	—
Quarter-Blocks	3	5	—	—	—
Lashers for Qurtr.-Bl	1	5	—	—	—
Seizings	¼	12	—	—	—

Names of the standing and running Rigging.	In.	Fath in Len.	Blocks, &c.		
			Species.	In	N
Span	2½	3	—	—	—
Slings	2½	4½	—	—	—
Staysail Haliards	2	22	S.	7	1
Strapping	2	1	—	—	—
Sheets	2	19	S.	7	2
Strapping	2	1½	—	—	—
Tack	2	2	—	—	—
Down-Hauler	1	12	S.	5	1
Strapping	1	1	—	—	—
Middle Staysail-Stay	2½	15	S.	9	1
Tackle	1½	27	S.	6	[illegible]
Haliard	2	21	S.	7	1
Sheets	2½	24	S.	7	2
Tack	1½	6	—	—	—
Down Hauler	1	15	S.	5	1
Strapping	2	4	—	—	—
Studdingsail Haliards	2	50	S.	7	6
Sheets	1½	10	S.	7	2
Tacks	2	42	S.	7	2
Down-Haulers	¾	32	T.	—	6
Lashers for Booms	2	16	—	—	—
Tailing & Strapping	2	10	—	—	—
MAIN-TOP GALLANT MAST.					
Shrouds	2	32	T.	—	8
Laniard	¾	8	—	—	—
Standing-Backstays	2	27	T.	—	12
Laniards	¾	6	—	—	—

TABLE OF THE QUANTITIES AND DIMENSIONS OF THE STANDING AND RUNNING RIGGING OF BRIGS.

Names of the standing and running Rigging.	In.	Fath in Len.	Blocks, &c. Species.	In	N
Stay	2½	14	T.	—	1
Strapping	2	½	—	—	—
Flagstaff Haliards	¾	18	—	—	—
Tie	2	9	—	—	—
Haliard	1½	16	S.	5	2
Strapping	1½	1½	—	—	—
Horses	1½	4½	—	—	—
Braces	1	44	S.	5	4
Strapping	1	1	—	—	—
Lifts, single	1½	23	T.	—	2
Parral-Ropes	1	2½	Par.	6	1
Clue-lines	1	36	S.	5	4
Strapping	1	1½	—	—	—
Bow-lines	1	12	T.	—	4
Bridles	1	4	T.	—	2
Ear-rings	—	½ of a tarr'd Line			
Staysail-stay	2	17	S.	7	1
Haliard	1	24	S.	5	1
Sheets	1	26	S.	5	2
Tacks	1	4	—	—	—
Down-Hauler	¾	18	S.	4	2
Strapping	1	2	—	—	—
Studdingsail-Haliards	1½	48	S.	6	6
Sheets	1	30	—	—	—
Tacks	1½	38	S.	6	4
Down-Haulers	¾	28	—	—	—
Royal-Haliards	2	3½	—	—	—

Names of the standing and running Rigging.	In.	Fath in Len.	Blocks, &c. Species.	In	N
NECESSARY ROPES.					
Cat-Falls	2½	36	D.I.bd.c.	11	2
Laniards	1	4	—	—	—
Stoppers	1½	2	—	—	—
Guy's Mast-Head	4	20	—	—	—
Fore	4	12	—	—	—
After	2½	14	—	—	—
Fish-Tackle-Pendent	4	5	H. 1 & T.	—	2
Stoppers, Sheet Anchor	4	4	—	—	—
Best Bower	4	4	—	—	—
Small Bower	4	4	—	—	—
Seizings	¾	10	—	—	—
Stream Anchor	2½	3	—	—	—
Kedge	2	5	—	—	—
Deck & Bit cabled	6	12	T.	—	6
Laniards	2	16	—	—	—
Seizing	¾	36	—	—	—
Stoppers Preventer	4½	9	—	—	—
Ditto	4	9	—	—	—
Ditto	3½	9	—	—	—
Ditto	3	9	—	—	—
Ditto	2½	11	—	—	—
Shank-Painters Sheet-Anchor cabled	4	4	—	—	—
Best Bower	4	4	T.	—	1
Small Bower	4	4	T.	—	1

Names of the standing and running Rigging.	In.	Fath in Len.	Blocks, &c. Species.	In	N
Seizing	¾	10	—	—	—
Buoy-Rope's Sheet Anchor cabled	4	18	—	—	—
Best Bower cabled	4	18	—	—	—
Small Bower cabled	4	18	—	—	—
Strm. Anchor cabled	3	18	—	—	—
Kedge cabled	2½	16	—	—	—
Ropes, Entering	2½	9	—	—	—
Quarts. & Stantns. in the Waste	2½	10	—	—	—
Wheel, or Tiller, White	2	10	S.	7	4
Strapping	2	2	—	—	—
Puddening of Anchors	2½ 2	40 14	— —	— —	— —
Seizings	¾	36	—	—	—
Slings, Buoy	2½	30	—	—	—
Laniards	1	6	—	—	—
Seizing	¾	16	—	—	—
Butt	4½	5	T.	—	2
Hogshead	3½	8	T.	—	3
Can Hook	3½	4	—	—	—
Straps for wood Buoys	3	4	—	—	—
Swabs	3	9	—	—	—
Cable-Bends	1½	32	—	—	—
Futtock-Staves	4 2½	4 2	— —	— —	— —

TABLE OF THE QUANTITIES AND DIMENSIONS OF THE STANDING AND RUNNING RIGGING OF BRIGS.

Names of the standing and running Rigging.	In.	Fath in Len.	Blocks, &c.			*Names of the standing and running Rigging.*	In.	Fath in Len.	Blocks, &c.			*Names of the standing and running Rigging.*	In.	Fath in Len.	Blocks, &c.		
			Species.	In	N				Species.	In	N				Species.	In	N
Lashing Cables betw. Decks, Sheep Pens, Steep Tubs, Tubs in the Tops, & Booms	¾	220	—	—	—	For different Uses of the Ship . . .	—	—	Sn. I. bd.	12	2	Painter	3	5	T.	—	2
							—	—	Hk. c.	10	2	Sternfast	2	5	—	—	—
							—	—		9	2	Slings	4½	7	H. & T.	4	6
Haliard for Ensigns .	¾	12	—	—	—	PINNACE, YAWL OR CUTTER.						Seizings	¾	10	—	—	—
Jacks	¾	8	—	—	—							Rudder-Laniards . .	¾	1	—	—	—
For Colours: Head-Line .	—	1	White Line		—	Main & Fore Haliards	1½	10	—	—	—						
Rope-Bands .	—	2lb.	Marline	—	—	Sheets	1½	10	—	—	—						
Pendent-Sligs.	¼	18	—	—	—	Grapnel Rope cabled .	3	35	—	—	—						

A TABLE

OF THE

QUANTITIES AND DIMENSIONS OF THE STANDING AND RUNNING RIGGING

OF

CUTTERS OF 200 TONS.

Names of the standing and running Rigging.	Inch	Fath in Len.	Blocks, &c. Species.	In	N
BOWSPRIT.					
Shrouds	5½	14	——	—	—
Tackle-Falls . . .	2½	38	*D.	10	4
JIB.					
Haliard . . . . . -	5	35	S. c.	14	2
Tackle-Fall . . .	5½	40	Tr. c.	12	2
Jack	6½	24	Sn.I.bd.c	15	1
Sheets cable-laid . .	5	18	*S.	14	2
Downhauler . . .	2	21	S.	8	1
Inhauler	2½	15	D. c. *Sn. c.c	8 8	1 1
Heelrope	3	21	Sn.I.bd	13	1
Flying-Jib-Haliard .	2½	35	——	—	—
Sheets	2½	24	——	—	—
Jack	2½	30	——	—	—
Down Hauler . .	2	24	——	—	—
FORE-MAST.					
Sail-Haliards . .	2½	50	D. c. *S.	10 10	1 1

Names of the standing and running Rigging.	Inch	Fath in Len.	Blocks, &c. Species.	In	N
Down-Hauler . .	2	30	*S.	8	1
Jack-Tackle . . .	2½	10	*S.	8	2
Bow-Line . . .	3	14	*S.	8	2
Sheets	3	7	*S.	10	2
MAIN-MAST.					
Girtlines	2½	50	S.	9	2
Lashings	1	10	——	—	—
Pendents of Tackles .	6	26	S. c.	15	2
Runners of Tackles .	5½	24	*L. t. c.	20	2
Falls	3½	45	*S. c.	11	2
Shrouds cabled, fine .	8	84	D. E.	12	8
Seizings, Eye . Throat End .	1	68	——	—	—
Laniards, fine .	4	40	——	—	—
Ratline	1½	120	——	—	—
Stay cabled 4 Strds. fine	13	16	D. E.	18	1
Seizing, fine . . .	1½	10	——	—	—
Laniard, fine . .	4	10	——	—	—

Names of the standing and running Rigging.	Inch	Fath in Len.	Blocks, &c. Species.	In	N
Worming . .	1½	60	——	—	—
Lashing	2	25	——	—	—
Preventer-Stay cabled 4 Strands .	6½	18	D. E. I. b.	9 9	1 1
Laniards, fine . .	3	4	——	—	—
Seizing	1	9	——	—	—
Boom-Topping Lifts	4½	26	S.I.bd.c.	12	1
Runner	4	12	S. c. S. c.	12 13	1 1
Fall	2½	32	D. c. *S. c.	12 9	1 1
Guy-Pendent . .	5	9	T.	—	1
Tackle-Fall .	3	30	*D. *S.	12 12	1 1
Gaff-Span	4½	5	——	—	—
Down-Hauler-Peek	2	28	S.	8	1
Throat	2	38	S.	8	1
Inner-Tie	6	15	S.I.bd.c.	14	2
Haliard	3	56	D. c.	14	2

TABLE OF THE QUANTITIES AND DIMENSIONS OF THE STANDING AND RUNNING RIGGING OF CUTTERS.

Names of the standing and running Rigging.	Inch	Fath in Len.	Blocks, &c.			*Names of the standing and running Rigging.*	Inch	Fath in Len.	Blocks, &c.			*Names of the standing and running Rigging.*	Inch	Fath in Len.	Blocks, &c.		
			Species.	In	N				Species.	In	N				Species.	In	N
Outer Tie	6	19½	—	—	—	Bridles	2	7	T.	—	6	Stirrups	2	8	—	—	—
Haliards	3½	90	S.I.bd.c.	12	3	Sheets	3½	42	S. Sho.	10	2	Horse down the Mast	5	25	D.E.	7	2
			D. c.	12	2	Quarter-Blocks	—	—	D&Dsc.c.	12	1	Strap	3½	4	—	—	—
Ear-rings, Inner	1½	18	—	—	—	Trysail-Sheet	2	33	*Tr.	11	2	Laniard	2½	5	—	—	—
Outer						Down-Hauler	2	24	—	—	—						
Sheet	3	60	Tr. c.	15	2	Lacing	2	24	—	—	—	NECESSARY ROPES.					
Tack-Tackle	2½	20	*D.	8	1	Studdingsail-Haliards	2	96	—	—	—	Cat-Falls	3	44	D.I bd-c.	12	2
			*S.	8	1	Sheets	2	38	—	—	—	Fish-Tackle-Pendent	4	3	H & T.	1	1
Luff-Tackles	2½	40	*D.	11	2	Tacks	2	90	—	—	—	Stoppers, Sheet-Anchor	5	5	—	—	—
			*S.	11	2	Down-Haulers	2	30	—	—	—	Best Bower	5	5	—	—	—
Main-Reef-Pendents, fine	5	7	—	—	—	TOPGALLANT-MAST.						Small Bower	5	5	—	—	—
	5	7	—	—	—	Standing Backstays	2½	60	—	—	—	Stream Anchor	2½	3	—	—	—
	5	9	—	—	—	Tackles	2	28	*S.	8	8	Kedge	2	3	—	—	—
	5	10	—	—	—	Stay	3	30	—	—	—	Deck & Bit cabled	6½	7½	T.	—	4
TOP-MAST.						Haliards	2	40	S.	9	2	Laniards	2	10	—	—	—
Tackle-Fall	3	30	*L. t.	20	1	Top-Rope	4	28	D.	9	1	Seizings	¾	20	—	—	—
			*S.	11	1	Fall	2	45	*S.	9	1	Shank Painters Sheet Anchor cabled	4	6	—	—	—
Tie	3	26	—	—	—	Tricing-Line	2	30	S.	8	2						
Haliard	2	32	D.	9	1	CROSS-JACK-YARD.						Best Bower	4	4	—	—	—
			*S.	9	1	Clue-Lines	2	40	—	—	—	Small Bower	4	4	—	—	—
Horses	2½	8	—	—	—	Braces	2½	60	S.	8	2	Buoy-Rope Sheet-Anchor cabled	4	18	—	—	—
Braces	2	60	S.	8	2	Sheets	2½	14	—	—	—						
Lifts	2	45	S.	8	4	Haliard	2½	50	*D. c.	9	1	Best Bower cabled	4	18	—	—	—
Parral-Ropes	2	8	Par.	12	1				*S. c.	9	1	Small Bower cabled	4	18	—	—	—
Racking & Seizing	¾	10	—	—	—	Lifts, running	3	35	S.	8	2	Strm.-Anchor cabled	3	20	—	—	—
Clue-lines	1½	44	S.	6	4	Bunt-Lines	2	40	—	—	—	Kedge cabled	2½	20	—	—	—
Bunt-Lines	1½	41	S.	6	2	Tacks	2½	14	—	—	—	Entering	3	10	—	—	—
Bow-lines	2	66	Tr.	9	1	Horses	3	12	—	—	—	Wheel, White	2	12	S.	7	2

TABLE OF THE QUANTITIES AND DIMENSIONS OF THE STANDING AND RUNNING RIGGING OF CUTTERS.

Names of the standing and running Rigging.	Inch	Fath in Len.	Blocks, &c. Species	Blocks, &c. In	Blocks, &c. N
Puddening of Anchors	2½	50	—	—	—
	2	18	—	—	—
	¾	42	—	—	—
	2½	30	—	—	—
	1½	6	—	—	—
Slings, Buoy . . .	4	12	—	—	—
Hogshead . .	3	3	—	—	—
Can-Hooks . .	4	6	—	—	—
Cable-Bends	1½	34	—	—	—
Nettings for the Tops, Quarters, Waste, & Barricadoes . .	¾	540	—	—	—
Haliard for Ensigns .	¾	20	—	—	—
Slings, Pendent, &c. .	¾	24	—	—	—
For different Uses of the Ship . . .	—	—	*Sn. I.	12	2
	—	—	bd. c.	10	2
	—	—	Bulkhd.	9	2
Ridge Ropes for the Quarters . . .	2½	108	—	—	—
BOAT.					
Main & Fore Haliards	1½	10	—	—	—
Main & Fore Sheets .	1½	10	—	—	—
Grapnel-Ropes cabled	3	35	—	—	—
Painter	3	5	—	—	—
Slings	4½	5	—	—	—
Seizings	¼	10	—	—	—
Rudder-Laniards. . .	¾	1	—	—	—
Sternfast	2	5	—	—	—

FITTING THE RIGGING IN THE HOUSE.

Spunyarn	20 Cwt.
Lines, tarred	8 No.
Marline	15 lb.
Old Canvas	140 Yards.
Tar	1½ Barrels
Tallow	23 lb.
Twine Ordinary	2 lb.
Length of the Warp of the Main Shrouds,	18 Yards.

A TABLE

OF THE

QUANTITIES AND DIMENSIONS OF THE STANDING AND RUNNING RIGGING

OF

SLOOPS OF 130 TONS.

Names of the standing and running Rigging.	Inch	Fath in Len.	Blocks, &c. Species.	In	N
BOWSPRIT.					
Gammoning . . .	3½	10	H.	8	2
Laniards	2½	2½	——	—	—
Shrouds	3½	12	——	—	—
Tackle-Falls . .	2	12	*S.	8	2
Horses	3	13	T.	—	2
Laniards	1	3½	——	—	—
Strap	2½	3	T.	—	2
JIB.					
Stay cabled 4 Strds. fine	4½	21	——	—	—
Haliard	2½	33	*S.	9	2
Sheets cable-laid . .	3½	20	*S.	10	2
Downhauler . . .	1½	22	S.	6	1
FORE.					
Sail-Haliards . . .	2½	32	*S.	9	2
Down-Hauler . .	1½	15	——	—	—
Tack-Tackle . .	1	4	——	—	—
Bow-Line . . .	3	12	——	—	—
Bridles	3	1½	——	—	—

Names of the standing and running Rigging.	Inch	Fath in Len.	Blocks, &c. Species.	In	N
Sheets	3	5	S.	9	1
Fore Burton-Pendents	3	5½	S.	10	1
Falls	2½	24	D. *S.	9 9	1 2
MAIN-MAST.					
Girt Lines	2½	50	S.	9	2
Lashings	1	8	——	—	—
Pendents of Tackle .	4½	12	S. c.	14	2
Runners of Tackles .	4½	22	*L. t. c.	21	2
Falls	2½	46	*S. th. c.	14	2
Shrouds cabled, fine .	6	78	D.E.	10	8
Seizings, Eye . Throat. End .	1	60	——	—	—
Laniards, fine . .	2½	32	——	—	—
Ratline	1	146	——	—	—
Stay cabled 4 Str. fine	9	12	D.E.	17	1
Seizings, fine . .	1½	9	——	—	—
Laniard, fine . .	3	10	——	—	—

Names of the standing and running Rigging.	Inch	Fath in Len.	Blocks, &c. Species.	In	N
Worming . . .	1	50	——	—	—
Boom-Topping-Lift .	3½	27	*S. I. bd.	13	1
Runner	3	10	S. S.	13 11	1 1
Fall	2	20	D. *S.	9 9	1 1
Guy-Pendent . .	4½	7	——	—	—
Tackle-Fall . . .	2½	20	*D. *S.	9 9	1 1
Gaff-Span	4½	5	——	—	—
Down-Hauler Peek	2	22	S.	7	2
Throat	2	32	S.	7	1
Inner Tie	4½	14	S.I. bd.c.	15	1
Haliard	2½	36	*D. th.c.	19	2
Outer Tie	4½	15	S. I. bd.c.	15	1
Haliard	2½	40	*D. th. c.	19	2
Ear-Rings, Inner .	1½	4	——	—	—
Outer .	1	8	——	—	—
Reef . .	3½	9	——	—	—

TABLE OF THE QUANTITIES AND DIMENSIONS OF THE STANDING AND RUNNING RIGGING OF KETCHES.

Names of the standing and running Rigging.	Inch	Fath in Len.	Blocks, &c.		
			Species.	In	N
Tackle	1½	3	S.	7	2
Jeers. Tie	4½	44	D.	15	1
Falls			S.	15	3
Lashers to the Mast-Hd.	2	10	——	—	—
Yard	2	10	——	—	—
Horses	3	10	T.	—	2
Laniards	1½	4	——	—	—
Braces	2½	50	S.	10	2
Pendents	3	8	S.	10	2
Lifts	2½	60	S.	10	2
Span for the Cap	3½	3	S.	10	2
Parral-Ropes	3	14	Par.	16	1
Nave-Lines	1½	18	——	—	—
Racking & Seizings	1	18	——	—	—
Main	1½	26	S.	7	2
Brails, Middle	1½	26	T.	—	4
Lower	1½	24	T.	—	4
Hanks	2	15	——	—	—
Truss Pendents	4	9	——	—	—
Falls	2	12	D.	7	1
Clue-Garnets	2½	60	S. str.	10	4
Buntline-Leg-Falls	2	60	L. Buntl.	14	2
			S.	8	8
Leechline-Leg-Falls	2	40	S.	8	4
Bow-Lines	4	36	D.	14	1
Bridles	4	12	T.	—	4
Ropebands & Par-Rings	1	60	——	—	—
Sheets taper'd & cabl'd	4½	18	S. Sho.	14	2
Tacks tapered & cabled	5½	26	——	—	—
Wingsail Guys & Lee Fangs	1½	30	——	—	—
Haliard	2	40	D.	10	2
Sheets	2	44	D.	9	4
Topping-Lift	2	36	——	—	—
Span	2	3	——	—	—
Luff-Tackle	2	20	*L. t.	16	1
			*S.	10	1
Studdingsl.-Haliards, Inner & Outer	2	40	S.	8	4
Sheets	1½	10	S.	8	2
Tacks	1½	20	——	—	—
MAIN-TOP-MAST.					
Shrouds, fine	3½	33	*D. E.	6	6
Seizings, Eye	¾	6	——	—	—
Throat	¾	9	——	—	—
End	¾	9	——	—	—
Laniards, fine	2	18	——	—	—
Ratline	¾	50	——	—	—
Standing-Backstays, fine	3½	30	D.E.I.bd with H.ks	6	2
Seizings, Eye, Throat, End	¾	10	——	—	—
Laniards, fine	2	10	——	—	—
Stay cabled 4 Strands, fine	3½	26	S.	10	1
				9	1
Runners, fine	3½	14	S.	8	2
				7	1
Laniards	1½	4	——	—	—
Shifting-Backstays, fine	3½	16	.T.	—	1
Tackle	1½	10	*S.	7	2
Seizings	¾	5	——	—	—
Futtock-Shrouds, fine	3½	10	*Pl. de.	6	6
Seizings, Upper, Lower	¾	12	——	—	—
Ratline	¾	12	——	—	—
Top-Rope-Pendent, fine	4½	13	T.	—	1
Fall	2	40	*D.	9	1
			*S.	8	2
Tie	3½	14	S.	12	2
Lashers at the Mast Hd.	1	4	——	—	—
Yard	1	2	——	—	—
Haliard	2	34	D.	11	1
			*S.	11	1
Horses	2½	7	——	—	—
Braces	2	50	S.	8	2
Pendents	2½	6	S.	8	2
Lifts	2	52	S.	8	4
Beckets	2	2	——	—	—
Parral-ropes	2	8	Par.	11	1
Racking & Seizing	¾	8	——	—	—
Clue-Lines	2	60	S. st. bd.	7	4
				7	4
Bunt-Lines	½	30	S.	7	2

TABLE OF THE QUANTITIES AND DIMENSIONS OF THE STANDING AND RUNNING RIGGING OF KETCHES.

Names of the standing and running Rigging.	In.	Fath in Len.	Blocks, &c. Species.	I	N
Leech-Lines . . .	1½	18	S.	7	2
Bow-Lines	2	50	S.	8	2
Bridles	2	12	T.	—	4
Ropebands & Ear-Rings	¾	35	—	—	—
Sheets tapered	3½	44	S. Sho. D. quart	14 14	2 2
Lashers for Quarter Block	1	5	—	—	—
Span	3	3	—	—	—
Studdingsail-Haliards	1½	70	S.	7	8
Sheets	1½	6	—	—	—
Tacks	1½	46	S.	7	4
Bow-Lines . . .	1	28	—	—	—
TOP-GALLANT-MAST.					
Haliards	1½	40	S.	7	2
Braces	1	40	T.	—	4
Clue-Lines . . .	1	40	S.	6	4
MIZEN-MAST.					
Girt-Lines	2	30	S.	7	2
Lashings	1	4	—	—	—
Shrouds, fine . . .	3	36	D. E.	6	6
Seizings, Eye . .	¾	6	—	—	—
Throat .	¾	9	—	—	—
End . .	¾	9	—	—	—
Laniards, fine . .	1½	10	—	—	—
Ratline	¾	50	—	—	—
Stay cabled 4 Str. fine	3½	12	D. E.	6	2
Laniards, fine . . .	1½	6	—	—	—

Names of the standing and running Rigging.	In.	Fath in Len.	Blocks, &c. Species.	In	N
Haliard & Strap	1½	35	—	—	—
Jears	2	16	D. S.	7 7	1 1
Lashers at the Mast-Head	1	5	—	—	—
Yard	1	2	—	—	—
Derrick . . :	2	20	S.	8	3
Span	2	3	S. sn.	12	1
Yard-Rope-Pendents	2	6	S.	6	2
Fall	2	20	S.	6	2
Backstays . . .	2½	12	D. E.	6	2
Laniards	1½	7	—	—	—
Brail-Peek-Legs . .	¾	28	S.	6	4
Main	1½	12	S.	6	4
Lower	1	30	T.	—	10
Lacing Mizen to Yard	¾	10	—	—	—
Ear-Rings & Ropebands	1	4	—	—	—
Sheet	2	7	*S.	8	2
Staysail-Haliard . .	1½	24	S.	7	2
Sheet	2	4	—	—	—
Tack	2	4	—	—	—
CROSS-JACK-YARD.					
Braces	1½	24	S.	6	4
Laniards	¾	3	—	—	—
Lifts standing . . .	1½	4	—	—	—
Strap	1½	2	T.	—	2
Slings	2	2	T.	—	1

Names of the standing and running Rigging.	In.	Fath in Len.	Blocks, &c. Species.	In	N
Worming for the Bowsprit, Main-Top & Mizen-Shrouds, & Backstays . .	No. 36, whitelines of 12 threads.	—	—	—	—
MIZEN-TOP-MAST					
Shrouds, fine . . .	2	12	T.	—	3
Laniards, fine . . .	¾	5	—	—	—
Standing Backstays, fine	1½	20	—	—	—
Laniards, fine . .	1	4	—	—	—
Stay cabled 4 Str. fine	1	14	—	—	—
Futtock-Shrouds, fine	1½	4	T.	—	4
Tie	2	4	S.	7	1
Haliard	1½	16	S.	7	2
Horses	2	5	—	—	—
Braces	1½	22	S.	6	2
Lifts	2	18	S.	6	2
Parral-Rope . . .	1½	4	—	—	—
Clue-Lines	1½	22	S.	6	2
Bow-Line	1½	24	S.	6	2
Bridles	1	6	T.	—	6
Ear-Rings & Ropebands	¾	25	—	—	—
Sheets	2	20	S.	8	4
NECESSARY ROPES.					
Cat-Falls	2½	14	D. I. bd.	12	2

TABLE OF THE QUANTITIES AND DIMENSIONS OF THE STANDING AND RUNNING RIGGING OF KETCHES.

Names of the standing and running Rigging.	In.	Fath in Len.	Blocks, &c.		
			Species.	In	N
Fish-Tackle-Pendent	4	3	*S. *D. sc.	12	1
Fall	2	22	*D. *S.	10 10	1 1
Stoppers, Best Bower Small ditto	4	8	—	—	—
Deck & Bitcab. No. 10	5	3	T.	—	8
Laniards	1½	4	—	—	—
Seizings	¼	10	—	—	—
Shank-Painter, Best Bower Small ditto	3	6	—	—	—
Buoy Rope Sheet-Anchor cabled	4	18	—	—	—

Names of the standing and running Rigging.	In.	Fath in Len.	Blocks, &c.		
			Species.	In	N
Best Bower cabled	4	18	—	—	—
Small ditto ditto	4	18	—	—	—
Puddening of Anchors	2	30	worn	—	—
Seizings	¼	30	—	—	—
Slings, Buoy	2½	16	T.	—	1
Straps	2	4	—	—	—
Butt	4	4½	T.	—	1
Hogshead	3½	3½	T.	—	1
Cable-Bends	1½	30	—	—	—
Futtock-Staves	5 3	3 1½	—	—	—

Length of the first Warp of	Yards	Foot
Main-Shrouds	18	1
Main-Topmast Shrouds	10	2
Main-Backstays	28	2
Mizen Shrouds	11	2

For FITTING the RIGGING in the HOUSE.

Species.	Quantity.
Spunyarn	16 Cwt.
Lines, tarred	12 Number.
Marline, ditto	12 lb.
Old Canvas	60 Yards
Tar	1 Barrel
Tallow	28 lb.
Twine Ordinary	1 lb.

TABLES

OF THE

QUANTITIES AND DIMENSIONS

OF THE

Standing and Running Rigging

OF

MERCHANT-SHIPPING.

ADAPTED particularly to those of which Draughts and Dimensions are given in Steel's "ELEMENTS and PRACTICE of NAVAL ARCHITECTURE," &c.

DIMENSIONS OF THE STANDING AND RUNNING RIGGING

OF

MERCHANT-SHIPPING;

WITH THE SPECIES, SIZE, AND NUMBER, OF BLOCKS, HEARTS, DEAD-EYES, &c.

Bowsprit, Spritsail-yard, and Jib.	1257 Tons.					818 Tons.					544 Tons.					330 Tons.					Sloop of 60 Tons.				
			Blocks, &c.					Blocks, &c.					Blocks, &c.					Blocks, &c.					Blocks, &c.		
	Size in Inch	Fath in Len.	Species.	Sz in In	Numb.	Size in Inch	Fath in Len.	Species.	Sz in In	Numb.	Size in Inch	Fath in Len.	Species.	Sz in In	Numb.	Size in Inch	Fath in Len.	Species.	Sz in In	Numb.	Size in Inch	Fath in Len.	Species.	Sz in In	Numb.
BOWSPRIT.																									
Gammoning	7	122	—	—	—	6½	119	—	—	—	5½	75	—	—	—	5	63	—	—	—	—	—	—	—	—
Shrouds	7	30	*Hearts.	13	4	6½	13½	*Hearts	11	2	5½	12	*Hearts	9	2	5	10½	*Hearts	7	2	3½	9	—	—	—
Collars	6	10	Hearts	13	4	5½	4½	Hearts	11	2	4½	4	Hearts	9	2	4	3½	Hearts	7	2	—	—	—	—	—
Seizings	1	15	—	—	—	1	7	—	—	—	1	6	—	—	—	¾	5	—	—	—	—	—	—	—	—
Lashings	2	12	—	—	—	1½	6	—	—	—	1½	5	—	—	—	1	4½	—	—	—	—	—	—	—	—
Laniards	3	20	—	—	—	2½	9	—	—	—	2½	8	—	—	—	2½	7	—	—	—	2	9	*Single	6	2
Bobstays 4 strands cabld.	9	30	Hearts	14	3	8½	26½	Hearts	11	3	7	16	Hearts	9	2	6	14	Hearts	7	2	—	—	—	—	—
Collars	9	8	Hearts	14	3	8½	6½	Hearts	11	3	7	4	Hearts	9	2	6	3½	Hearts	7	2	—	—	—	—	—
Seizings	1½	30	—	—	—	1	26½	—	—	—	1	16	—	—	—	¾	14	—	—	—	—	—	—	—	—
Lashings	2	9	—	—	—	1½	7½	—	—	—	1½	5	—	—	—	1	4½	—	—	—	—	—	—	—	—
Laniards	4½	16	—	—	—	4	13	—	—	—	3	8	—	—	—	3	7	—	—	—	—	—	—	—	—
Horses	4½	17	Thimbls.	—	6	4	15	Thimbls.	—	6	3	14	Thimbls	—	6	3	12	Thimbls.	—	6	3	11	Thimbls.	—	2
Straps	3	3½	Thimbls.	—	4	3	3	Thimbls.	—	4	2½	2½	Thimbls.	—	4	2½	2	Thimbls	—	4	2½	2	Thimbls.	—	2
Laniards	2	6½	—	—	—	1½	5½	—	—	—	1½	5	—	—	—	1½	4½	—	—	—	¾	3½	—	—	—
SPRITSAIL-YARD.																									
Horses	3½	11	—	—	—	3	10	—	—	—	3	9½	—	—	—	3	7	—	—	—	—	—	—	—	—

Stirrups	3	5½	Thimbls.	—	6	2½	5	Thimbls.	—	6	2½	4½	Thimbls.	—	6	2½	3½	Thimbls.	1	6	—	—	—	—	—
Braces	3	70	Double	11	4	2½	62½	Double	9	4	2½	60	Double	9	4	2	42½	Double	9	4	—	—	—	—	—
Pendents	3½	5½	Single	11	4	3	5	Single	9	4	3	5	Single	9	4	3	3½	Single	9	4	—	—	—	—	—
Strappping	3½	10	—	—	—	3	9	—	—	—	3	8½	—	—	—	3	6	—	—	—	—	—	—	—	—
Lifts	3	49	Single	11	4	2½	44	Single	9	4	2½	42	Single	9	4	2½	30	Single	9	4	—	—	—	—	—
Beckets	3	3	—	—	—	2½	2½	—	—	—	2½	2	—	—	—	2½	2	—	—	—	—	—	—	—	—
Strapping	3½	4	—	—	—	2½	3	—	—	—	2½	2	—	—	—	2½	2	—	—	—	—	—	—	—	—
Seizing	¾	8	—	—	—	¾	6	—	—	—	¾	4	—	—	—	¾	4	—	—	—	—	—	—	—	—
Standing	4	8	Thimbls.	—	4	3	7	Thimbls.	—	4	3	7	Thimbls.	—	4	3	5	Thimbls.	—	4	—	—	—	—	—
Straps	4	4	—	—	—	3	3½	—	—	—	3	3½	—	—	—	2½	2½	—	—	—	—	—	—	—	—
Laniards	1½	6	—	—	—	1½	5	—	—	—	1½	5	—	—	—	1	4	—	—	—	—	—	—	—	—
Haliards	3	33½	*Long.t. Single	24 12	1 1	2½	30	*Long.t. Single	18 9	1 1	2½	28	*Long.t. Single	18 9	1 1	2½	20	*Long.t. Single	18 9	1 1	—	—	—	—	—
Strapping	3½	3	—	—	—	3	2½	—	—	—	3	2	—	—	—	3	2	—	—	—	—	—	—	—	—
Seizing & Lashing	¾	6½	—	—	—	¾	6	—	—	—	¾	5½	—	—	—	—	—	—	—	—	—	—	—	—	—
Slings	5	5½	—	—	—	4½	5	—	—	—	4	4½	—	—	—	4	3½	—	—	—	—	—	—	—	—
Seizing & Racking	1½	11	—	—	—	1	10	—	—	—	¾	9	—	—	—	¾	7	—	—	—	—	—	—	—	—
Clue-Lines	2½	37	Strap bd Single	10 10	4 2	2	33	Strap bd. Single	8 8	4 2	2	32	Strap bd Single	8 8	4 2	2	23	Strap bd. Single	8 8	4 2	—	—	—	—	—
Strapping	3	4	—	—	—	2½	3½	—	—	—	2½	3	—	—	—	2	2½	—	—	—	—	—	—	—	—
Bunt-Lines	2	28	Single	8	2	2	25	Single	8	2	1½	24	Single	6	2	1½	17	Single	6	2	—	—	—	—	—
Strapping	2½	1	—	—	—	2	1	—	—	—	1½	1	—	—	—	1½	1	—	—	—	—	—	—	—	—
Ear-Rings	1½	14	—	—	—	1	12	—	—	—	1	12	—	—	—	1	8½	—	—	—	—	—	—	—	—
Sheets cabled	4½	35	—	—	—	3½	31	—	—	—	3½	30	—	—	—	3½	22	—	—	—	—	—	—	—	—
JIB.																									
Horses	3½	18	—	—	—	3½	15	—	—	—	3	14	—	—	—	3	13	—	—	—	—	—	—	—	—
Seizings	1	9	—	—	—	1	7	—	—	—	¾	7	—	—	—	—	—	—	—	—	—	—	—	—	—
Guy-Pendents	4	27½	Single	13	2	3½	23	Single	11	2	3½	22	Single	11	2	3	21	Single	9	2	—	—	—	—	—
Falls	2½	24	Single	9	4	2½	20	Single	9	4	2½	19	Single	9	4	2½	18	Single	7	4	—	—	—	—	—
Strapping	4 2½	4 3	—	—	—	3½ 2½	3 2	—	—	—	3½ 2½	3 2	—	—	—	3	3	—	—	—	—	—	—	—	—
Lashers	1	13½	—	—	—	1	11½	—	—	—	¾	9½	—	—	—	¾	9	—	—	—	—	—	—	—	—
Out-Hauler	3½	11	—	—	—	3	9½	—	—	—	2½	9	—	—	—	2½	8½	—	—	—	—	—	—	—	—
Tackle-Fall	2½	27	Single	8	2	2	23	Single	7	2	2	22	Single	7	2	2	21	Single	7	2	—	—	—	—	—

DIMENSIONS OF THE STANDING AND RUNNING RIGGING OF MERCHANT-SHIPPING.

Jib, Flying-Jib, Foremast, and Fore-yard.	1257 Tons.					818 Tons.					544 Tons.					330 Tons.					Sloop of 60 Tons.				
	Size in Inch	Fath in Len.	Blocks, &c.			Size in Inch	Fath In Len.	Blocks, &c.			Size in Inch	Fath in Len.	Blocks, &c.			Size in Inch	Fath in Len.	Blocks, &c.			Size in Inch	Fath in Len.	Blocks, &c.		
			Species.	In	N			Species.	In	N			Species.	In	N			Species.	In	N			Species.	In	N
Strapping	2	1	—	—	—	2	1	—	—	—	2	1	—	—	—	2	1	—	—	—	—	—	—	—	—
Stay 4 Strands cabled	5	27½	Single	14	1	4½	23	Single	12	1	3½	22	Single	10	1	3	21	Single	10	1	3½	13	—	—	—
Strapping	4½	1	—	—	—	1½	1	—	—	—	3½	1	—	—	—	3	1	—	—	—	—	—	—	—	—
Tackle-Fall	2½	20	Double Single	10 10	1 1	2	19	Double Single	9 9	1 1	2	18	Single	7	2	2	17	Single	7	2	—	—	—	—	—
Strapping	2½	2	—	—	—	2	1½	—	—	—	2	1	—	—	—	2	1	—	—	—	—	—	—	—	—
Haliards	3½	40	Single	12	1	3	35	Single	11	1	2½	33	Single	9	1	2½	31	Single	8	1	2	22	*Single	7	2
Strapping	3½	1	—	—	—	3	1	—	—	—	2½	1	—	—	—	2½	1½	—	—	—	—	—	—	—	—
Downhauler	2½	35	Single	9	1	2	31	Single	9	1	1½	28	Single	7	1	1½	27	Single	6	1	1½	14½	Single	5	1
Sheets, single	3	38½	Single	11	2	3	33	Single	11	2	3	31½	Single	10	2	2½	—	Single	9	2	2	13	*Single	9	2
Pendents	4	9½	Single	11	2	4	8	Single	11	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
FLYING-JIB.																									
Haliards	2½	48	Single	7	1	2½	43	Single	7	1	2	40	Single	7	1	2	37	Single	7	1	—	—	—	—	—
Sheets	2½	44	—	—	—	2½	38	—	—	—	2	36	—	—	—	2	30	—	—	—	—	—	—	—	—
Tack	2	2	—	—	—	2	2	—	—	—	1½	2	—	—	—	1	2	—	—	—	—	—	—	—	—
Downhauler	1½	42	Single	5	1	1½	38	Single	5	1	1	35	Single	5	1	1	32	Single	5	1	—	—	—	—	—
SPRITSAIL, TOPSAIL & YARD.																									
Horses	2½	7½	—	—	—	2	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Braces	2½	53	Single	9	2	2	52	Single	8	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strapping	2½	2	—	—	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lifts, single	2	38	Single	8	2	2	37	Single	7	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strapping	2	1½	—	—	—	2	1½	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Haliard	2½	28½	Single	9	2	2	27½	Single	8	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strapping	2½	2	—	—	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lashing	¾	7	—	—	—	¾	6½	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parral-Ropes	2½	4	Parral	12	1	2	3½	Parral	10	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Clue-Lines	2	47½	Single	7	4	1½	46	Single	6	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strapping	2	3	—	—	—	1½	2½	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lacing & Ear-Rings	1	38	—	—	—	¾	37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
FORE-MAST.*																									
Pendts. of Tackles cabd.	10½	17	*Sing·co	22	2	9½	15	*Sing. co	17	2	7½	7	*Sing. co	15	2	Fore	Bur	ton Pend	en	ts	2½	3½	Single	9	1
Strapping	6½	3½	Thimbls.	—	8	5½	3	Thimbls.	—	8	5	2	Thimbls.	—	4	—	—	Falls	—	—	2	16	Double *Single	7 7	1 2
Seizing	1½	8½	—	—	—	1	7½	—	—	—	¾	3	—	—	—	—	—	—	—	—	—	—	—	—	—
Runners of Tackles cab.	6½	35	D. th. co	21	4	5½	30	D. th. co.	17	4	5	28	—	—	—	—	—	—	—	—	—	—	—	—	—
Strapping	5½	7	—	—	—	5	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Falls of Tackles	4	176	*S·th·co.	24	4	3½	154	*S.th.co.	20	4	3	73	*S.th.co.	15 11	2 2	—	—	—	—	—	—	—	—	—	—
Strapping	5½	8	Thimbls.	—	2	5	7	Thimbls.	—	2	4	6	—	—	—	—	—	—	—	—	—	—	—	—	—
Seizing	1	32	—	—	—	¾	30	—	—	—	¾	13	—	—	—	—	—	—	—	—	—	—	—	—	—
†Shrouds 4 Strands cab.	10½	140	D. Eyes	16	14	9½	124	D. Eyes	14	14	7½	84	D. Eyes	11	12	7	62	D. Eyes	11	10	—	—	—	—	—
Seizings Eye	1½	35	—	—	—	1½	31	—	—	—	1	21	—	—	—	1	15	—	—	—	—	—	—	—	—
Seizings Throat	1½	70	—	—	—	1½	62	—	—	—	1	42	—	—	—	1	31	—	—	—	—	—	—	—	—
Seizings End	1½	70	—	—	—	1½	62	—	—	—	¾	42	—	—	—	¾	31	—	—	—	—	—	—	—	—
Laniards	5	87	—	—	—	4½	77	—	—	—	4	52	—	—	—	4	39	—	—	—	—	—	—	—	—
Ratline	1½	227	—	—	—	1½	200	—	—	—	1½	136	—	—	—	1½	100	—	—	—	—	—	—	—	—
Catharpin Legs	6	15	—	—	—	6	13	—	—	—	5	12	—	—	—	4	10½	—	—	—	—	—	—	—	—
Seizings	1½	60	—	—	—	1½	52	—	—	—	1	48	—	—	—	1	41	—	—	—	—	—	—	—	
FORE-YARD.																									—
Stay cabled 4 Strands	16	14	Heart	22	1	14½	12	Heart	20	1	12	10	Heart	16	1	11	9	Heart	14	1	—	—	—	—	—
Seizing	1½	21	—	—	—	1½	17	—	—	—	1½	15	—	—	—	1½	13	—	—	—	—	—	—	—	—
Laniard	5	14	—	—	—	4½	11	—	—	—	4	9	—	—	—	4	8	—	—	—	—	—	—	—	—
Collar cab. 4 Strs. double	9	7	Heart	22	1	7½	6	Heart	20	1	6½	5	Heart	16	1	5½	4	Heart	14	1	—	—	—	—	—
Seizings	1½	11	—	—	—	1½	9	—	—	—	1½	8	—	—	—	1½	6	—	—	—	—	—	—	—	—
Lashing	2½	7	—	—	—	2	6	—	—	—	2	5	—	—	—	1½	4	—	—	—	—	—	—	—	—
Jears Falls	6½	112	Tr. coak Do. coak	24 24	2 2	5½	77	Do. coak	18	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tie	—	—	—	—	—	—	—	—	—	—	7½	14½	S. do. sc.	20	3	7	12½	S. do. sc.	20	3	—	—	—	—	—

* As no Rope is particularly allowed for Girt-Lines, take any of the 5 inch cordage in large, and 3 inch for small, Ships.

† The length of the first warp is taken from the upper side of the bolsters, on the trestle-trees, to the foremost dead-eye in the channel; or, from the middle of the opposite side of the mast-head down to the deck.

DIMENSIONS OF THE STANDING AND RUNNING RIGGING OF MERCHANT-SHIPPING.

Fore-yard, and Foretop-mast.	1257 Tons.					818 Tons.					544 Tons.					330 Tons.					Sloop of 60 Tons.				
	Size in Inch	Fath in Len.	Blocks, &c. Species.	In	N	Size in Inch	Fath in Len.	Blocks, &c. Species.	In	N	Size in Inch	Fath in Len.	Blocks, &c. Species.	In	N	Size in Inch	Fath in Len.	Blocks, &c. Species.	In	N	Size in Inch	Fath in Len.	Blocks, &c. Speces.	In	N
Tacks cabled and	5	50	Sho.	18	2	4½	45	Sho.	17	2	4	37	Sho.	16	2	3½	29	Sho.	15	2	—	—	—	—	—
Strapping	5		Sing. co.	18	2	4½		Sing. co.	17	2	4		Sing. co.	16	2	3½		Sing. co.	15	2	—	—	—	—	—
Seizing	1½		—	—	—	1½		—	—	—	1½		—	—	—	1		—	—	—	—	—	—	—	—
Stoppers	4½		H. & T.	2	2	4		H. & T.	2	2	3½		H. & T.	2	2	3	3	H. & T.	2	2	—	—	—	—	—
Slings, 4 Strand, cable	13½	14	Thimble	—	1	13	13	Thimble	—	1	9	10	Thimble	—	1	—	—	—	—	—	—	—	—	—	—
laid, and Strap.	13½		Thimble	—	1	13		Thimble	—	1	9		Thimble	—	1	—	—	—	—	—	—	—	—	—	—
Seizing	2	7	—	—	—	2	6	—	—	—	1½	4	—	—	—	—	—	—	—	—	—	—	—	—	—
Laniard	3½	6	—	—	—	3	5	—	—	—	2½	3	—	—	—	—	—	—	—	—	—	—	—	—	—
Staysail Stay	6	14	—	—	—	6	12	—	—	—	5	10	—	—	—	4½	9	—	—	—	—	FORE-SAIL.		—	—
Haliard	3½	30	Single	12	2	3	26	Single	11	2	3	22	Single	10	2	2½	20	Single	9	2	2	21	*Single	9	2
Sheets	3½	28	Single	12	2	3	24	Single	11	2	3	20	Single	10	2	2½	18	Single	9	2	2½	3½	—	—	—
Tack	2	2	—	—	—	2½	2	—	—	—	2½	2	—	—	—	2	2	—	—	—	1	2½	—	—	—
Down-Hauler	2½	28	Single	8	1	2	24	Single	7	1	2	20	Single	7	1	1½	18	Single	6	1	1½	10	—	—	—
Strapping	3½	5	—	—	—	3	4	—	—	—	3	3½	—	—	—	2½	4	—	—	—	2½	8	Bow-Line		—
	2½	1½				2	1				2	1													
Studdingsail Inner	3	49	Single	11	6	2½	40	Single	10	6	2	33	Single	9	6	2	27	Single	9	6	2½	1	Bridles	—	—
Haliards Outer	3½	80	Single	11	4	3	68	Single	10	4	2½	55	Single	9	4	2½	46	Single	9	4	—	—	—	—	—
Sheets	3	13½	—	—	—	2½	11	—	—	—	2	9	—	—	—	2	8	—	—	—	—	—	—	—	—
Tacks and	3½	60	Single	11	2	3	50	Single	10	2	2½	40	Single	9	2	2½	33	Single	9	2	—	—	—	—	—
Strapping	3½		—	—	—	3		—	—	—	2½		—	—	—	2½		—	—	—	—	—	—	—	—
FORETOP-MAST.																									
Burton-Pendents	5	6	Thimbls.	—	2	4½	5	Thimble	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Falls	2½	55	*Double	10	2	2½	47	*Double	9	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
			*Single	10	2			*Single	9	2															
Strapping	3½	4½	—	—	—	3	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Shrouds cab. 4 Strands	6½	64	D. Eyes	10	8	6	55	D. Eyes	8	8	5½	50	D. Eyes	8	8	4½	32	D. Eyes	7	6	—	—	—	—	—

Seizings { Eye	1	16	—	—	—	1	14	—	—	—	¾	12	—	—	—	—	—	—	—	—	—	—	—	—	—
Seizings { Throat	1	28	—	—	—	1	24	—	—	—	¾	21	—	—	—	Tarred Line			—	—	—	—	—	—	—
Seizings { End	¾	24	—	—	—	¾	21	—	—	—	¾	18	—	—	—	—	—	—	—	—	—	—	—	—	—
Laniards	3½	43	—	—	—	3	36	—	—	—	2½	33	—	—	—	2½	21	—	—	—	—	—	—	—	—
Ratline	1	85	—	—	—	1	75	—	—	—	1	69	—	—	—	1	44	—	—	—	—	—	—	—	—
Futt.-Shrouds cab. 4 Sts.	6½	24	Pl. d. e.	10	8	6	21	Fl. d. e.	8	8	5½	19	Pl. d. e.	8	8	4½	12	Fl. d. e.	7	6	—	—	—	—	—
Seizing { Upper	1	30	—	—	—	1	26	—	—	—	¾	23	—	—	—	¾	15	—	—	—	—	—	—	—	—
Seizing { Lower	¾	26	—	—	—	¾	23	—	—	—	¾	20	—	—	—	¾	13	—	—	—	—	—	—	—	—
Ratline	1	30	—	—	—	1	26	—	—	—	1	23	—	—	—	1	15	—	—	—	—	—	—	—	—
Back-Stays cab. 4 Stds.	6½	110	D. Eyes	10	6	6	94	D. Eyes	9	6	5½	86	D. Eyes	8	6	4½	50	D. Eyes	7	4	—	—	—	—	—
Seizings { Eye	1	13	—	—	—	1	12	—	—	—	¾	10	—	—	—	Tarred Line			—	—	—	—	—	—	—
Seizings { Throat	1	22	—	—	—	1	21	—	—	—	¾	17	—	—	—				—	—	—	—	—	—	—
Seizings { End	¾	19	—	—	—	¾	18	—	—	—	¾	15	—	—	—				—	—	—	—	—	—	—
Laniards	3½	22	—	—	—	3	19	—	—	—	2½	17	—	—	—	2½	10	—	—	—	—	—	—	—	—
Stay cabled 4 Strands	7½	22	—	—	—	7	19	—	—	—	6	17	—	—	—	5	15	—	—	—	—	—	—	—	—
Collar	6	3½	Single	18	1	5½	3	Single	16	1	5	2½	Single	15	1	4	2½	Single	13	1	—	—	—	—	—
Tackle	3½	22	Long. t. *Single	20 12	1 1	3	19	Long. t. *Single	18 10	1 1	2½	17	Long. t. *Single	18 9	1 1	2½	15	Long. t. *Single	16 8	1 1	—	—	—	—	—
Strapping	4½	3	—	—	—	4	2½	—	—	—	3	2½	—	—	—	3	2	—	—	—	—	—	—	—	—
Seizing	1½ ¾	6	—	—	—	1 ¾	5	—	—	—	1 ¾	5	—	—	—	¾	4	—	—	—	—	—	—	—	—
Top-Rope Pendents cabled 4 Strands	8½	33	S.Br.shi. I. bd. co.	22	2	7½	31	S. Br. shi. I. bd. co.	20	2	6½	29	S.Br.shi. I. bd. co.	18	2	6	25	S. Br. shi. I. bd. co.	16	2	—	—	—	—	—
Falls	4½	107	Tr.I.bd.c	20	4	4	100	Tr.I·bd.c	18	4	3½	94	Tr.I.bd.co	16	4	3	81	Tr·I.bd·co	14	4	—	—	—	—	—
FORE-TOPSAIL-YARD.																									
Tie cabled 4 Strands	5½	40	Fl. si. co. Dou. co.	18 18	2 1	5	35	Fl. si. co. Dou. co.	16 16	2 1	4½	32	Fl. si. co. Dou. co.	15 15	2 1	4	28	Fl. si. co. Dou. co.	14 14	2 1	—	—	—	—	—
Strapping	5½	8	—	—	—	5	7	—	—	—	4½	6	—	—	—	4	5½	—	—	—	—	—	—	—	—
Seizing	1	12	—	—	—	1	10	—	—	—	1	9	—	—	—	¾	8	—	—	—	—	—	—	—	—
Lashers { Mast-Head	2½	11	—	—	—	2½	9	—	—	—	2	8	—	—	—	1½	7	—	—	—	—	—	—	—	—
Lashers { Yard	2	5½	—	—	—	2	4½	—	—	—	1½	4	—	—	—	1	3½	—	—	—	—	—	—	—	—
Haliards	3½	110	Do.th.co *S.th.co.	22 22	2 2	3½	94	Do.th.co *S.th.co.	20 20	2 2	3	86	Do.th.co *S.th.co.	18 18	2 2	2½	74	Do.th.co *S.th.co.	16 16	2 2	—	—	—	—	—
Strapping	4½	8	—	—	—	4½	7	—	—	—	4	6	—	—	—	3½	5	—	—	—	—	—	—	—	—

DIMENSIONS OF THE STANDING AND RUNNING RIGGING OF MERCHANT-SHIPPING.

	1257 Tons.					818 Tons.					544 Tons.					330 Tons.					Sloop of 60 Tons.				
	Size in Inch	Fath in Len.	Blocks, &c.			Size in Inch	Fath in Len.	Blocks, &c.			Size in Inch	Fath in Len	Blocks, &c.			Size in Inch	Fath in Len.	Blocks, &c.			Size in Inch	Fath in Len.	Blocks, &c.		
			Species.	In	N			Species.	In	N			Species.	In	N			Species.	In	N			Species.	In	N
Seizing	¾	16	—	—	—	¾	14	—	—	—	¾	12	—	—	—	¾	10	—	—	—	—	—	—	—	—
Horses	4	11	—	—	—	3½	10	—	—	—	3	9	—	—	—	3	7	—	—	—	—	—	—	—	—
Stirrups	3	8	Thimble	—	6	3	7	Thimble	—	6	2½	6½	Thimble	—	6	2	5	Thimble	—	4	—	—	—	—	—
Braces	3½	91	Single	12	4	3½	80	Single	10	4	3	71	Single	9	4	3	55	Single	8	4	—	—	—	—	—
*Pendents	4½	9	Single	12	2	4½	8	Single	10	2	4	7	Single	10	2	3½	5½	Single	9	2	—	—	—	—	—
Strapping	4	4½	—	—	—	3½	4	—	—	—	3	3½	—	—	—	2½	2½	—	—	—	—	—	—	—	—
Lifts	3½	62	Double	12	2	3½	54	Double	10	2	3	43	Sister	17	2	2½	37	Sister	14	2	—	—	—	—	—
			Single	12	4			Single	10	4			Single	10	4			Single	8	4					
Beckets	3½	3	—	—	—	3½	3	—	—	—	3	2½	—	—	—	2½	2	—	—	—	—	—	—	—	—
Strapping	3½	9	—	—	—	3½	9	—	—	—	3	7	—	—	—	2½	6	—	—	—	—	—	—	—	—
Seizing	¾	27	—	—	—	¾	27	—	—	—	Tarred Line			—	—	—	—	—	—	—	—	—	—	—	—
Parral-Ropes	3	11	Parral	22	1	2½	10	Parral	20	1	2½	9	Parral	16	1	2	7	Parral	14	1	—	—	—	—	—
Racking & Seizing	1	15	—	—	—	¾	13	—	—	—	¾	12	—	—	—	Tarred Line			—	—	—	—	—	—	—
Clue-lines	3½	82	S. st. bd.	12	4	3½	72	S. st. bd.	10	4	3	64	S. st. bd.	10	4	2½	49	S. st. bd.	8	4	—	—	—	—	—
			Single	12	2			Single	10	2			Single	10	2			Single	8	2					
Strapping	3½	8	—	—	—	3½	7	—	—	—	3	6	—	—	—	2½	5	—	—	—	—	—	—	—	—
Bunt-Lines and	3	66	Single	10	4	3	58	Single	10	4	2½	52	Single	8	4	2	40	Single	7	4	—	—	—	—	—
Strapping	3		—	—	—	3		—	—	—	3½		—	—	—	2		—	—	—	—	—	—	—	—
Leech-Lines and	2½	27	Single	9	2	2½	24	Single	9	2	2	21	Single	7	2	2	16	Single	6	2	—	—	—	—	—
Strapping	2½		—	—	—	2½		—	—	—	2		—	—	—	2		—	—	—	—	—	—	—	—
Bow-lines	3	60	Single	11	2	3	52	Single	11	2	2½	47	Single	9	2	2	36	Single	8	2	—	—	—	—	—
Bridles	3	12	Thimble	—	4	3	10	Thimble	—	4	2½	9	Thimble	—	4	2	7	Thimble	—	4	—	—	—	—	—
Strapping	3	5	—	—	—	3	4	—	—	—	2½	3	—	—	—	2	2	—	—	—	—	—	—	—	—
Lashing	1	12	—	—	—	1	10	—	—	—	1	9	—	—	—	¾	7	—	—	—	—	—	—	—	—
Reeftackle Pendents	3½	41	*Double	8	4	3½	38	*Double	8	4	3	32	*Single	7	4	2½	25	*Single	7	4	—	—	—	—	—
Falls	2	55	—	—	—	2	48	—	—	—	1½	43	—	—	—	1½	33	—	—	—	—	—	—	—	—

* Braces may rig with or without Pendents.

Strapping	2½	3	—	—	—	2½	3	—	—	—	2	2	—	—	—	2	1½	—	—	—	—	—	—	—	—
Ear-Rings	1½	41	—	—	—	1½	38	—	—	—	1½	32	—	—	—	1	25	—	—	—	—	—	—	—	—
Sheets	5½	49	Sin. Sho. ¼ thk. & thin. co.	20 20	2 2	5	43	Sin. Sho. ¼ thk. & thin. co.	18 18	2 2	4½	38	Sin. Sho. ¼ thk. & thin. co.	16 16	2 2	4	30	Sin. Sho. ¼ thk. & thin. co.	14 14	2 2	—	—	—	—	—
Strapping for Sheet Blks.	6	5	—	—	—	5½	4	—	—	—	5	3½	—	—	—	4½	3	—	—	—	—	—	—	—	—
Quarter do.	4½	10	—	—	—	4½	8	—	—	—	4	7	—	—	—	3½	6	—	—	—	—	—	—	—	—
Lashers for Quarter do.	2	10	—	—	—	2	8	—	—	—	2	7	—	—	—	1½	6	—	—	—	—	—	—	—	—
Seizings	1½	18	—	—	—	1	16	—	—	—	1	14	—	—	—	¾	11	—	—	—	—	—	—	—	—
Span	3	8	—	—	—	3	7	—	—	—	3	6	—	—	—	2½	5	—	—	—	—	—	—	—	—
Stoppers	4½	4	—	—	—	4½	3½	—	—	—	3½	3	—	—	—	3	2½	—	—	—	—	—	—	—	—
Slings	5	11	—	—	—	4½	10	—	—	—	3½	9	—	—	—	3	7	—	—	—	—	—	—	—	—
Staysail-Stay cabled 4 Strands	7	22	Single	14	1	7	19	Single	14	1	5½	17	Single	12	1	4½	15	Single	10	1	—	—	—	—	—
Tackle	3½	14	Double Single	10 9	1 1	3½	12	Double Single	10 9	1 1	2½	11	Double Single	8 7	1 1	2	10	Single Single	8	2	—	—	—	—	—
Haliard and Strapping	3½ 3½	38	Single	12	1	3½ 3½	33	Single	12	1	2½ 2½	29	Single	10	1	2 2	26	Single	9	1	—	—	—	—	—
Sheets and Strapping	3½ 3½	33	Single	12	2	3½ 3½	28	Single	12	2	2½ 2½	25	Single	10	2	2 2	22	Single	9	2	—	—	—	—	—
Out-Hauler	2½	19	Single	9	1	2½	17	Single	9	1	2	15	Single	8	1	1½	13	Single	7	1	—	—	—	—	—
Down-Hauler and Strapping	2½ 2½	29	Single	9	1	2½ 2½	25	Single	9	1	2 2	23	Single	8	1	1½ 1½	20	Single	7	1	—	—	—	—	—
Studding-Sail-Haliards	3½	90	Single	12	6	3	80	Single	10	6	2½	70	Single	9	6	2	55	Single	8	6	—	—	—	—	—
Sheets	3	46	Single	12	2	2½	40	Single	10	2	2	36	Single	9	2	1½	28	Single	8	2	—	—	—	—	—
Tacks	3½	101	Single	12	2	3	88	Single	10	2	2½	79	Single	9	2	2	61	Single	8	2	—	—	—	—	—
Down-Haulers	2	55	Thimble Single	— 9	6 2	2	48	Thimble Single	— 9	6 2	1½	43	Thimble Single	— 8	6 2	1½	33	Thimble Single	— 6	6 2	—	—	—	—	—
Boom-Tackles	2	77	Double Single	8 8	2 4	2	67	Double Single	8 8	2 4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tails and Straps	3½ 2½	18 6	—	—	—	3½ 2½	16 5	—	—	—	3 2	14 4	—	—	—	2	14	—	—	—	—	—	—	—	—

DIMENSIONS OF THE STANDING AND RUNNING RIGGING OF MERCHANT-SHIPPING.

Main-Yard.	1257 Tons.					818 Tons.					544 Tons.					330 Tons.					Sloop of 60 Tons.				
	Size in Inch	Fath in Len.	Blocks, &c.			Size in Inch	Fath in Len.	Blocks, &c.			Size in Inch	Fath in Len.	Blocks, &c.			Size in Inch	Fath in Len.	Blocks, &c.			Size in Inch	Fath in Len.	Blocks, &c.		
			Species.	I	N			Species.	In	N			Species.	In	N			Species.	In	N			Species.	In	N
Jeers	7	119	Tr. co.	24	2	6	85	Do. co.	18	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Falls			Do. co.	24	2																				
MAIN-YARD.																									
Tie	—	—	—	—	—	—	—	—	—	—	8	15	S. do. sc.	20	3	7½	10	S. do. sc.	20	3	—	—	—	—	—
Falls	—	—	—	—	—	—	—	—	—	—	4	75	Do. co.	12	4	3½	65	Do. coak	12	4	—	—	—	—	—
											5½	3	Sin. co.	9	2	5½	3	S. coak	9	2	—	—	—	—	—
Strapping	8	11	—	—	—	6½	9	—	—	—	4	2	—	—	—	4	2	—	—	—	—	—	—	—	—
											3	1½				3	1½								
Seizing	2	22	—	—	—	1½	18	—	—	—	1	13	—	—	—	1	13	—	—	—	—	—	—	—	—
Lashing at the Mast-Head	4	30	—	—	—	3½	28	—	—	—	3	25	—	—	—	2½	20	—	—	—	—	—	—	—	—
Yard	3	10	—	—	—	2½	9	—	—	—	2	7	—	—	—	2	6	—	—	—	—	—	—	—	—
Stoppers	5½	5	—	—	—	4½	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Horses	5	14	—	—	—	4½	13	—	—	—	4	9½	—	—	—	4	8	—	—	—	—	—	—	—	—
Stirrups	4	14	Thimble	—	10	3	13	Thimble	—	10	3	9½	Thimble	—	8	3	8	Thimble	—	8	—	—	—	—	—
Seizings	¼	14	—	—	—	¼	13	—	—	—	Tarred Line.			—	—	—	—	—	—	—	—	—	—	—	—
Laniard	2	5	—	—	—	2	4	—	—	—	1½	3	—	—	—	1½	2½	—	—	—	—	—	—	—	—
Yard-Tackle-Pendents	6½	8½	D.th. co.	16	2	5½	7½	D. th. c.	14	2	5	5½	D. th. c.	12	2	5	4½	D. th. co.	12	2	—	—	—	—	—
Falls	3½	99	* Double	18	2	3	87	* Double	16	2	3	64	* Double	14	2	3	52	*Double	13	2	—	—	—	—	—
			Single	13	2			Single	11	2			Single	10	2			Single	9	2	—	—	—	—	—
Strapping	5	8	—	—	—	4	7	—	—	—	3½	5	—	—	—	3	4½	—	—	—	—	—	—	—	—
Seizing	1	16	—	—	—	1	14	—	—	—	¾	10	—	—	—	¾	9	—	—	—	—	—	—	—	—
Inner Trieing-Lines	2	36	Single	7	2	2	30	Single	7	2	1½	24	Single	6	2	1½	20	Single	6	2	—	—	—	—	—
Outer Trieing-Lines	2	36	Single	7	4	2	30	Single	7	4	1½	24	Single	6	4	1½	20	Single	6	4	—	—	—	—	—
Strapping	2	6	—	—	—	2	5	—	—	—	2	4	—	—	—	3	3½	—	—	—	—	—	—	—	—
Braces	4	85	Single	15	4	3¾	75	Single	13	4	3½	55	Single	12	4	3	45	Single	10	4	—	—	—	—	—
Pendents	5	8½	Single	15	2	4¾	7½	Single	13	2	4½	5½	Single	12	2	4	4½	Single	10	2	—	—	—	—	—
Strapping	4½	6	—	—	—	4	5	—	—	—	4	4	—	—	—	3	3½	—	—	—	—	—	—	—	—

Seizing	¾	16	—	—	—	¾	13	—	—	—	Tarred Line			—	—	—	—	—	—	—	—	—	—	—	—
Lashing	1½	6	—	—	—	1½	5	—	—	—	1½	4	—	—	—	1	3	—	—	—	—	—	—	—	—
Lifts	4	102	Single	15	6	3½	90	Single	13	6	3½	66	Single	12	6	3	54	Single	10	6	—	—	—	—	—
Span for cap . .	6	8	Sister	22	2	5½	7	Sister	20	2	5	6	Sister	18	2	4½	5	Sister	16	2	—	—	—	—	—
Short Span . . .	4	3	—	—	—	3½	2½	—	—	—	3½	2	—	—	—	3	2	—	—	—	—	—	—	—	—
Strapping . . .	4½	5	—	—	—	4	5	—	—	—	3½	3	—	—	—	3	3	—	—	—	—	—	—	—	—
Seizing	¾	10	—	—	—	¾	8	—	—	—	¾	7	—	—	—	Tarred Line			—	—	—	—	—	—	—
Truss-Pendents . .	7½	16	Thimble	—	4	6	14	Thimble	—	4	5½	12	Thimble	—	4	4½	9	Thimble	—	4	—	—	—	—	—
Falls	3	52	*Double	11	4	2½	43	*Double	10	4	2½	35	*Double	9	4	2	30	*Double	8	4	—	—	—	—	—
Strapping . . .	3½	5	—	—	—	3	4	—	—	—	3	3½	—	—	—	2½	2½	—	—	—	—	—	—	—	—
Eye-Seizings . .	1½	15	—	—	—	1	12	—	—	—	1	10½	—	—	—	¾	7½	—	—	—	—	—	—	—	—
Nave Lines . . .	2	17	Single	7	1	1½	14	Single	7	1	1½	12	Single	6	1	1½	10	Single	6	1	—	—	—	—	—
Clue-Garnets . .	3½	70	S. st. bo.	13	4	3	62	S. st. bo.	12	4	3	46	S. st. bo.	11	4	2½	37	S. st. bo.	9	4	—	—	—	—	—
			Single	13	2			Single	12	2			Single	11	2			Single	9	2					
Strap about the Yd.	3½	8	—	—	—	3	7	—	—	—	3	6	—	—	—	2½	4	—	—	—	—	—	—	—	—
Strapping . . .	3½	2	—	—	—	3	2	—	—	—	3	2	—	—	—	2½	1½	—	—	—	—	—	—	—	—
Seizing	¾	7	—	—	—	¾	7	—	—	—	Tarred Line			—	—	—	—	—	—	—	—	—	—	—	—
Lashing	1	10	—	—	—	1	9	—	—	—	1	7	—	—	—	¾	6	—	—	—	—	—	—	—	—
Buntline-Legs . . .	3	47	Double	10	2	2½	39	Double	9	2	2½	30	Double	8	2	2	26	Double	8	2	—	—	—	—	—
Falls . . . : .	3	47	Single	10	10	2½	39	Single	9	10	2½	30	Single	8	8	2	26	Single	8	8	—	—	—	—	—
Strapping . . .	3½	11	—	—	—	3	9	—	—	—	2½	8	—	—	—	2½	7	—	—	—	—	—	—	—	—
Leechline-Legs . .	2½	47	Double	10	4	2½	39	Double	9	4	2	30	Double	8	2	2	26	Double	8	2	—	—	—	—	—
Falls	2½	47	Single	10	10	2½	39	Single	9	10	2	30	Single	8	8	2	26	Single	8	8	—	—	—	—	—
Strapping . . .	3	12	—	—	—	2½	10	—	—	—	2½	9	—	—	—	2½	8	—	—	—	—	—	—	—	—
Slablines and . .	2	36	Single	8	2	2	32	Single	8	2	2	24	Single	7	2	1½	21	Single	7	2	—	—	—	—	—
Strapping . .	2					2					2					1½					—	—	—	—	—
Bowlines	4½	54	Double	16	1	4	45	Double	15	1	3½	36	Double	14	1	3	31	Double	12	1	—	—	—	—	—
Bridles	4½	13	Thimbls.	—	6	4	11	Thimbls.	—	6	3½	9	Thimbls.	—	6	3	8	Thimbls.	—	6	—	—	—	—	—
Strapping . . .	4½	4	—	—	—	4	3	—	—	—	3½	2	—	—	—	3	2	—	—	—	—	—	—	—	—
Seizing	1	4	—	—	—	¾	3	—	—	—	¾	2	—	—	—	¾	2	—	—	—	—	—	—	—	—
Lashing	2½	4	—	—	—	2	3	—	—	—	2	2	—	—	—	1½	2	—	—	—	—	—	—	—	—
Ear-Rings	2	24	—	—	—	2	21	—	—	—	1½	16	—	—	—	1½	13	—	—	—	—	—	—	—	—
Sheets cabled and .	5	85	Sing. co.	18	2	4½	75	Sing. co.	17	2	4	55	Sing. co.	16	2	3½	45	Sing. co.	15	2	—	—	—	—	—
Strapping . .	5		Thimbls.	—	2	4½		Thimbls.	—	2	4		Thimble	—	2	3½		Thimble	—	2	—	—	—	—	—

DIMENSIONS OF THE STANDING AND RUNNING RIGGING OF MERCHANT-SHIPPING.

Main-yard, and Main-top mast.	1257 Tons.					818 Tons.					544 Tons.					330 Tons.					Sloop of 60 Tons.				
	Size in Inch	Fath in Len.	Blocks, &c.			Size in Inch	Fath in Len.	Blocks, &c.			Size in Inch	Fath in Len.	Blocks, &c.			Size in Inch	Fath In Len.	Blocks, &c.			Size in Inch	Fath in Len.	Blocks, &c.		
			Species.	In	N			Species.	In	N			Species.	In	N			Species.	In	N			Species.	In	N
Seizing	1	14	—	—	—	1	12	—	—	—	1	9	—	—	—	¾	7	—	—	—	—	—	—	—	—
Stoppers	4	4	—	—	—	3½	4	—	—	—	3	3½	—	—	—	2¼	3	—	—	—	—	—	—	—	—
Tacks, cabled and	5	85	Sing. co.	18	2	4½	75	Sing. co.	17	2	4	55	Sing. co.	16	2	3½	45	Sing. co.	15	2	—	—	—	—	—
Strapping	5					4½					4					3½					—	—	—	—	—
Seizing	1½	8	—	—	—	1½	7	—	—	—	1½	6	—	—	—	1	5	—	—	—	—	—	—	—	—
Stoppers	4½	4	H. & T.	2	2	4	4	H. & T.	2	2	3½	3½	H. & T.	2	2	3	3	H. & T.	2	2	—	—	—	—	—
Slings, 4 Strds., cable	13½	13	Thimble	—	1	15	11	Thimbe	—	1	9	8	Thimble	—	1	—	—	—	—	—	—	—	—	—	—
laid and Strap	13½		Thimble	—	1	13		Thimble	—	1	9		Thimble	—	1	—	—	—	—	—	—	—	—	—	—
Seizing	2	9	—	—	—	2	8	—	—	—	1½	6	—	—	—	—	—	—	—	—	—	—	—	—	—
Laniard	3½	9	—	—	—	3	8	—	—	—	2½	6	—	—	—	—	—	—	—	—	—	—	—	—	—
Staysail-Stay	6	13	—	—	—	6	12	—	—	—	5	10½	—	—	—	4½	9	—	—	—	—	—	—	—	—
Haliard	3½	40	*Single	12	2	3	34	*Single	11	2	3	30	*Single	10	2	2½	26	*Single	9	2	—	—	—	—	—
Sheets	3½	13	*Single	12	2	3	12	*Single	11	2	3	10	*Single	10	2	2½	9	*Single	9	2	—	—	—	—	—
Tack	3	4½	—	—	—	2½	4	—	—	—	2½	3½	—	—	—	2	3	—	—	—	—	—	—	—	—
Downhauler	2½	20	Single	8	1	2	18	Single	7	1	2	15	Single	7	1	1½	13	Single	6	1	—	—	—	—	—
Strapping	3½	4	—	—	—	3	4	—	—	—	3	3	—	—	—	2½	3	—	—	—	—	—	—	—	—
	2½	1				2	1				2	1									—	—	—	—	—
Studdingsail- Inner	3	51	Single	11	6	2½	45	Single	10	6	2	33	Single	9	6	2	27	Single	9	6	—	—	—	—	—
Haliards Outer	3½	87	Single	11	4	3	77	Single	10	4	2½	57	Single	9	4	2½	47	Single	9	4	—	—	—	—	—
Sheets	3	25½	—	—	—	2½	22½	—	—	—	2	16½	—	—	—	2	13	—	—	—	—	—	—	—	—
Tucks and	3½	47	Single	11	2	3	41½	Single	10	2	2½	30½	Single	9	2	2½	25	Single	9	2	—	—	—	—	—
Strapping	3½					3					2½					2½					—	—	—	—	—
MAINTOP-MAST.																									
Burton-Pendents	5	6	Thimble	—	2	4½	5	Thimble	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Falls	2½	55	*Double	10	2	2½	50	*Double	9	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
			*Single	10	2			*Single	9	2															

Strapping . . .	3½	5	—	—	—	3	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Shrouds cabled 4 Strds.	6½	65	D. Eyes	10	8	6	56	D. Eyes	8	8	5½	51	D. Eyes	8	8	4½	33	D. Eyes	7	6	—	—	—	—	—
Eye . .	1	16	—	—	—	1	14	—	—	—	¾	12	—	—	—	—	—	—	—	—	—	—	—	—	—
Seizings Throat .	1	28	—	—	—	1	24	—	—	—	¾	21	—	—	—	Tarred Line			—	—	—	—	—	—	—
End . .	¾	24	—	—	—	¾	21	—	—	—	¾	18	—	—	—	—	—	—	—	—	—	—	—	—	—
Laniards	3½	44	—	—	—	3	36	—	—	—	2½	33	—	—	—	2½	21	—	—	—	—	—	—	—	—
Ratline	1	86	—	—	—	1	76	—	—	—	1	70	—	—	—	1	45	—	—	—	—	—	—	—	—
Futtock-Shrouds cabled	6½	24	Pl. d. e.	10	8	6	21	Pl. d. e.	8	8	5½	19	Pl. d. e.	8	8	4½	12	Pl. d. e.	7	6	—	—	—	—	—
Seizing Upper .	1	30	—	—	—	1	26	—	—	—	¾	23	—	—	—	¾	15	—	—	—	—	—	—	—	—
Lower .	¾	26	—	—	—	¾	23	—	—	—	¾	20	—	—	—	¾	13	—	—	—	—	—	—	—	—
Ratline	1	30	—	—	—	1	26	—	—	—	1	23	—	—	—	1	15	—	—	—	—	—	—	—	—
Backstays cab. 4 Strds.	6½	120	D. Eyes	10	6	6	100	D. Eyes	9	6	5½	90	D. Eyes	8	6	4½	56	D. Eyes	7	4	—	—	—	—	—
Eye . .	1	13	—	—	—	1	12	—	—	—	¾	10	—	—	—			—	—	—	—	—	—	—	—
Seizings Throat .	1	22	—	—	—	1	21	—	—	—	¾	17	—	—	—	Tarred Line			—	—	—	—	—	—	—
End . .	¾	19	—	—	—	¾	18	—	—	—	¾	15	—	—	—			—	—	—	—	—	—	—	—
Laniards	3½	22	—	—	—	3	19	—	—	—	2½	17	—	—	—	2½	10	—	—	—	—	—	—	—	—
Stay cabled 4 Strands .	7½	24	—	—	—	7	21	—	—	—	6	20	—	—	—	5	16	—	—	—	—	—	—	—	—
Collar	6	4	Single	18	1	5½	3½	Single	16	1	5	3	Single	15	1	4	2½	Single	13	1	—	—	—	—	—
Tackle . . .	3½	22	Long. t. *Single	20 12	1 1	3	19	Long. t. *Single	18 10	1 1	2½	17	Long. t. *Single	18 9	1 1	2½	15	Long. t. *Single	16 8	1 1	—	—	—	—	—
Strapping . . .	4½	3	—	—	—	4	2½	—	—	—	3	2½	—	—	—	3	2	—	—	—	—	—	—	—	—
Seizing . . .	1½ ¾	6	—	—	—	1 ¾	5	—	—	—	1 ¾	5	—	—	—	¾	4	—	—	—	—	—	—	—	—
Top-RopePendts cab. 4 Strands . .	8½	34	S. Br. Sh. I. bo. co.	22	2	7½	32	S. Br. Sh. I. bo. co.	20	2	6½	30	S. Br. Sh. I. bo. co.	18	2	6	26	S. Br. Sh. I. bo. co.	16	2	—	—	—	—	—
Falls	4½	108	Tr.I.b.co	20	4	4	100	Tr.I.bo-co	18	4	3½	95	Tr.I.bo.co	16	4	3	82	Tr.I.bo.co	14	4	—	—	—	—	—
MAIN-TOPSAIL YARD.																									
Tie cabled 4 Strands	5½	40	Fl. si. co. Dou. co.	18 18	2 1	5	35	Fl. si. co. Dou. co.	16 16	2 1	4½	32	Fl. si. co. Dou. co.	15 15	2 1	4	28	Fl. si. co. Dou. co.	14 14	2 1	—	—	—	—	—
Strapping . . .	5½	8	—	—	—	5	7	—	—	—	4½	6	—	—	—	4	5½	—	—	—	—	—	—	—	—
Seizing	1	12	—	—	—	1	10	—	—	—	1	9	—	—	—	¾	8	—	—	—	—	—	—	—	—
Lashers at the MastHd.	2½	11	—	—	—	2½	9	—	—	—	2	8	—	—	—	1½	7	—	—	—	—	—	—	—	—
Yard .	2	5½	—	—	—	2	4½	—	—	—	1½	4	—	—	—	1	3½	—	—	—	—	—	—	—	—

DIMENSIONS OF THE STANDING AND RUNNING RIGGING OF MERCHANT-SHIPPING.

Main-topsail yard.	1257 Tons.					818 Tons.					544 Tons.					330 Tons.					Sloop of 60 Tons.				
	Size in Inch	Fath in Len.	Blocks, &c.			Size in Inch	Fath in Len.	Blocks, &c.			Size in Inch	Fath in Len.	Blocks, &c.			Size in Inch	Fath in Len.	Blocks, &c.			Size in Inch	Fath in Len.	Blocks, &c.		
			Species.	In	N			Species.	In	N			Species.	In	N			Species.	In	N			Species.	In	N
Haliards	3½	110	Do.th.co *S.th.co.	22 22	2 2	3½	100	Do. th.co *S.th. co.	20 20	2 2	3	90	Do.th.co *S.th.co.	18 18	2 2	2½	76	Do.th.co *S·th.co.	16 16	2 2	2	20	—	—	—
Strapping	4½	8	—	—	—	4½	7	—	—	—	4	6	—	—	—	3½	5	—	—	—	—	—	—	—	—
Seizing	¾	16	—	—	—	¾	14	—	—	—	¾	12	—	—	—	¾	10	—	—	—	—	—	—	—	—
Horses	4	11	—	—	—	3½	10	—	—	—	3	9	—	—	—	3	7	—	—	—	—	—	—	—	—
Stirrups	3	8	Thimbls.	—	6	3	7	Thimbls.	—	6	2½	6½	Thimbls.	—	6	2	5	Thimbls.	—	4	—	—	—	—	—
Braces	3½	70	Single	12	4	3½	60	Single	10	4	3	50	Single	9	4	3	42	Single	8	2	1½	23	—	—	—
*Pendents	4½	9	Single	12	2	4½	8	Single	10	2	4	7	Single	10	2	3½	5½	Single	9	2	—	—	—	—	—
Strapping	4	4½	—	—	—	3½	4	—	—	—	3	3½	—	—	—	2½	2½	—	—	—	—	—	—	—	—
Lifts	3½	64	Double Single	12 12	2 4	3½	55	Double Single	10 10	2 4	3	48	Sister Single	17 10	2 4	2½	38	Sister Single	11 8	2 4	1½	21	—	—	—
Beckets	3½	3	—	—	—	3½	3	—	—	—	3	2½	—	—	—	2½	2	—	—	—	—	—	—	—	—
Strapping	3½	9	—	—	—	3½	9	—	—	—	3	7	—	—	—	2½	6	—	—	—	—	—	—	—	—
Seizings	¾	27	—	—	—	¾	27	—	—	—	Tarred Line			—	—	—	—	—	—	—	—	—	—	—	—
Parral-Ropes	3	11	Parral	22	1	2½	10	Parral	20	1	2½	9	Parral	16	1	2	7	Parral	14	1	—	—	—	—	—
Racking & Seizing	1	15	—	—	—	¾	13	—	—	—	¾	12	—	—	—	Tarred Line			—	—	—	—	—	—	—
Clue-Lines	3½	83	S. st. bo. Single	12 12	4 2	3½	73	S. st. bo. Single	10 10	4 2	3	65	S. st. bo. Single	10 10	4 2	2½	50	S. st. bo. Single	8 8	4 2	—	—	—	—	—
Strapping	3½	8	—	—	—	3½	7	—	—	—	3	6	—	—	—	2½	5	—	—	—	—	—	—	—	—
Bunt-lines and	3	66	Single	10	4	3	58	Single	10	4	2½	52	Single	8	4	2	40	Single	7	4	—	—	—	—	—
Strapping	3					3					2½					2					—	—	—	—	—
Leech-lines and	2½	29	Single	9	2	2½	25	Single	9	2	2	22	Single	7	2	2	17	Single	6	2	—	—	—	—	—
Strapping	2½					2½					2					2									
Bow-lines	3	60	Single	11	2	3	52	Single	11	2	2½	47	Single	9	2	2	36	Single	8	2	1½	21	—	—	—
Bridles	3	12	Thimbls.	—	4	3	10	Thimbls	—	4	2½	9	Thimbls.	—	4	2	7	Thimbls.	—	4	1½	3	Thimbls.	—	4
Strapping	3	5	—	—	—	3	4	—	—	—	2½	3	—	—	—	2	2	—	—	—	—	—	—	—	—

Lashing	1	12	—	—	—	1	10	—	—	—	1	9	—	—	—	¾	7	—	—	—	—	—	—	—	—
Reef-Tackle Pendents	3½	42	*Double	8	4	3½	38	*Double	8	4	3	32	*Single	7	4	2½	25	*Single	7	4	—	—	—	—	—
Falls	2	64	—	—	—	2	56	—	—	—	1½	48	—	—	—	1½	37	—	—	—	—	—	—	—	—
Strapping	2½	3	—	—	—	2½	3	—	—	—	2	2	—	—	—	2	1½	—	—	—	—	—	—	—	—
Ear-Rings	1½	42	—	—	—	1½	38	—	—	—	1½	32	—	—	—	1	25	—	—	—	—	—	—	—	—
Sheets	5½	52	S. Sho. ¼ thk. & thin. co.	20 20	2 2	5	45	S. Sho. ¼ thk. & thin. co.	18 18	2 2	4½	40	S. Sho. ¼ thk. & thin. co.	16 16	2 2	4	32	S. Sho. ¼ thk. & thin. co.	14 14	2 2	1½	21	—	—	—
Strapping for Sheet Blk.	6	5	—	—	—	5½	4	—	—	—	5	3½	—	—	—	4½	3	—	—	—	—	—	—	—	—
Quart. do.	4½	10	—	—	—	4½	8	—	—	—	4	7	—	—	—	3½	6	—	—	—	—	—	—	—	—
Lashers for Quarter do.	2	10	—	—	—	2	8	—	—	—	2	7	—	—	—	1½	6	—	—	—	—	—	—	—	—
Seizing	1½	18	—	—	—	1	16	—	—	—	1	14	—	—	—	¾	11	—	—	—	—	—	—	—	—
Span	3	8	—	—	—	3	7	—	—	—	3	6	—	—	—	2½	5	—	—	—	—	—	—	—	—
Stoppers	4½	4	—	—	—	4½	3½	—	—	—	3½	3	—	—	—	3	2½	—	—	—	—	—	—	—	—
Slings	5	11	—	—	—	4½	10	—	—	—	3½	9	—	—	—	3	7	—	—	—	—	—	—	—	—
Staysail-Stay cab. 4 St.	7	24	Single	14	1	7	21	Single	14	1	5½	20	Single	12	1	4½	16	Single	10	1	—	—	—	—	—
Tackle	3¼	14	Double Single	10 9	1 1	3½	12	Double Single	10 9	1 1	2½	11	Double Single	8 7	1 1	2	10	Single	8	2	—	—	—	—	—
Haliard and Strapping	3½ 3½	48	Single	12	1	3½ 3½	42	Single	12	1	2½ 2½	40	Single	10	1	2 2	32	Single	9	1	—	—	—	—	—
Sheets and Strapping	3½ 3½	64	Single	12	2	3½ 3½	56	Single	12	2	2½ 2½	53	Single	10	2	2 2	41	Single	9	2	—	—	—	—	—
Tack	2½	5	—	—	—	2½	5	—	—	—	2	4	—	—	—	1½	4	—	—	—	—	—	—	—	—
Downhauler and Strapping	2½ 2½	29	Single	9	1	2½ 2½	25	Single	9	1	2 2	24	Single	8	1	1½ 1½	18	Single	7	1	—	—	—	—	—
Brails	2	47	Thimble Single	7	2 2	1½	41	Thimble Single	6	2 2	1½	39	Thimble Single	6	2 2	—	—	—	—	—	—	—	—	—	—
Middle-Staysail Stay	5	24	Single	12	1	4½	21	Single	12	1	3½	20	Single	10	1	3	16	Single	9	1	—	—	—	—	—
Tackle	2½	22	Double Single	8 8	1 1	2½	19	Double Single	8 8	1 1	2	18	Double Single	8 8	1 1	2	14	Single	7	2	—	—	—	—	—
Haliard	3½	46	Single	12	1	3½	40	Single	10	1	3	38	Single	9	1	2	30	Single	8	1	—	—	—	—	—
Sheets	3½	46	Single	12	1	3	40	Single	10	1	2½	38	Single	9	1	2	30	Single	8	1	—	—	—	—	—
Tack	3	5	—	—	—	2½	5	—	—	—	2	4	—	—	—	2	4	—	—	—	—	—	—	—	—
Down-Hauler	2½	30	Single	8	2	2	26	Single	8	2	2	25	Single	7	1	1½	20	Single	6	1	—	—	—	—	—

DIMENSIONS OF THE STANDING AND RUNNING RIGGING OF MERCHANT-SHIPPING.

Main-topsail-yard, Main-top-gallant-mast and yard.	1257 Tons.					818 Tons.					544 Tons.					330 Tons.					Sloop of 60 Tons.				
	Size in Inch	Fath in Len.	Blocks, &c.			Size in Inch	Fath in Len.	lo s. &c.			Size in Inch	Fath in Len.	Blocks, &c.			Size in Inch	Fath in Len.	Blocks, &c.			Size in Inch	Fath in Len.	Blocks, &c.		
			Species.	In	N			Species.	I.	N			Species.	In	N			Species.	In	N			Species.	In	N
Strapping	3	8	—	—	—	2½	8	—	—	—	2½	6	—	—	—	2	5	—	—	—	—	—	—	—	—
Triang-Lines . .	2	18	Single	8	1	2	15	Single	8	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Studdingsail-Haliards	3½	90	Single	12	6	3	80	Single	10	6	2½	70	Single	9	6	2	55	Single	8	6	—	—	—	—	—
Sheets	3	46	Single	12	2	2½	40	Single	10	2	2	36	Single	9	2	1½	28	Single	8	2	—	—	—	—	—
Tacks	3½	60	Single	12	4	3	53	Single	10	4	2½	47	Single	9	4	2	37	Single	8	4	—	—	—	—	—
Downhaulers . .	2	54	Single Thimble	9	2 6	2	48	Single Thimble	9	2 6	1½	43	Single Thimble	8	2 6	1½	33	Single Thimble	7	2 6	— —	— —	— —	— —	— —
Boom-Tackles .	2	72	Double Single	8 8	2 4	2	64	Double Single	8 8	2 4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lashing for Booms	2½	20	—	—	—	2½	20	—	—	—	2	15	—	—	—	1½	12	—	—	—	—	—	—	—	—
Tailing and Strapp.	3½ 2½	18 6	—	—	—	3½ 2½	16 5	—	—	—	3 2	14 4½	—	—	—	2	11 3½	—	—	—	—	—	—	—	—
MAIN-TOP-GALLANT-MAST.																									
Shrouds cabled 4 Strd.	4½	76	Thimbls.	—	12	3¾	65	Thimbls.	—	12	3	60	Thimbls.	—	12	2½	50	Thimbls.	—	8	—	—	—	—	—
Laniards	2	12	—	—	—	1½	10	—	—	—	1½	9	—	—	—	1	8	—	—	—	—	—	—	—	—
Backstays cabled 4 Str.	4½	42	D. Eyes	7	4	3¾	39	D. Eyes	6	4	3	35	D. Eyes	6	4	2½	30	Thimbls.	—	4	—	—	—	—	—
Laniards	2	10	—	—	—	1½	9	—	—	—	1½	8	—	—	—	1	7	—	—	—	—	—	—	—	—
Stay cabled 4 Strands	4½	30	Single	12	1	3¾	27	Single	12	1	3	25	Single	10	1	2½	22	Thimble	—	1	—	—	—	—	—
Strapping	3½	1½	—	—	—	3	1½	—	—	—	2½	1½	—	—	—	—	—	—	—	—	—	—	—	—	—
Royal or Flagstaff-Stay	2½	30	Thimble	—	1	2	27	Thimble	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Haliards	1½	64	—	—	—	1½	55	—	—	—	1	50	—	—	—	¾	42	—	—	—	—	—	—	—	—
Royal-Haliards . .	2	64	Single	7	1	2	55	Single	7	1	1½	50	Single	6	1	1½	42	Single	6	1	—	—	—	—	—
MAIN-TOP-GALLANT-YARD.																									
Tie	3½	17	—	—	—	3½	15	—	—	—	3	13	—	—	—	2½	12	—	—	—	—	—	—	—	—

Haliard . . .	2	30	Double Single	8 8	1 2	2	26	Double Single	8 8	1 2	1½	22	Double Single	7 7	1 2	1½	20	Single	6	2	—	—	—	—	—
Strapping . : .	2½	1½	—	—	—	2½	1½	—	—	—	2	1½	—	—	—	2	1	—	—	—	—	—	—	—	—
Horses	3	7½	—	—	—	3	7	—	—	—	2½	6	—	—	—	2½	5	—	—	—	—	—	—	—	—
Braces and . . .	2	66	Single	7	2	2	59	Single	7	2	2	54	Single	6	2	1½	45	Single	6	2	—	—	—	—	—
Strapping . . .	2					2																			
Lifts, single and . . .	2½	57	Single	7	2	2½	51	Single	7	2	2½	46	Thimbls.	—	2	2	39	Thimbls.	—	2	—	—	—	—	—
Strapping . . .	2½		Thimbls.		2	2½		Thimbls.		2															
Parral-Ropes . . .	2	5	Parral	12	1	2	4	Parral	10	1	1½	3½	Parral	9	1	1	3	Parral	7	1	—	—	—	—	—
Clue-Lines and . .	2	76	Single	7	6	2	68	Single	7	6	1½	62	Single	6	4	1	52	Single	5	4	—	—	—	—	—
Strapping . . .	2					2					2					1½									
Bow-Lines	2	75	Single	7	2	2	67	Single	7	2	1½	62	—	—	—	1	52	—	—	—	—	—	—	—	—
Bridles	2	9	Thimbls.	—	6	2	8	Thimbls.	—	6	1½	7½	Thimbls.	—	6	1	6½	Thimbls.	—	4	—	—	—	—	—
Strapping	2	1	—	—	—	2	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ear-Rings. Tarred-Line	—	28	—	—	—	—	25	—	—	—	—	23	—	—	—	—	19	—	—	—	—	—	—	—	—
Staysail-Stay . . .	3	38	Single	10	1	3	32	Single	10	1	2½	30	Single	8	1	2	27	Single	7	1	—	—	—	—	—
Haliards	2½	48	Single	9	1	2½	42	Single	9	1	2	40	Single	7	1	1½	37	Single	6	1	—	—	—	—	—
Sheets	2½	48	Single	9	2	2½	42	Single	9	2	2	40	Single	7	2	1½	37	Single	6	2	—	—	—	—	—
Tack	2	7	—	—	—	2	7	—	—	—	1½	6	—	—	—	1	5	—	—	—	—	—	—	—	—
Down-Hauler . . .	2	35	Single	7	2	2	29	Single	7	2	1½	27	Single	6	2	1	24	Single	5	2	—	—	—	—	—
Strapping . . .	2½	3	—	—	—	2½	3	—	—	—	2	4	—	—	—	1½	4	—	—	—	—	—	—	—	—
	2	1				2	1																		
Studding-Sail-Haliards	2	74	Single	7	6	2	63	Single	7	6	2	58	Single	7	6	1½	50	Single	6	6	—	—	—	—	—
Sheets	2	37	—	—	—	2	31	—	—	—	1½	29	—	—	—	1	25	—	—	—	—	—	—	—	—
Tacks	2	47	Single	7	4	2	41	Single	7	4	2	39	Single	7	4	1½	35	Single	6	4	—	—	—	—	—
Down-Hauler . .	1½	37	Thimbls.	—	2	1½	31	Thimbls.	—	2	1	29	Thimbls.	—	2	1	25	Thimbls.	—	2	—	—	—	—	—
Strapping	2	9	—	—	—	2	8	—	—	—	2	7	—	—	—	1½	6	—	—	—	—	—	—	—	—
MIZEN-MAST.																									
Burton-Pendents . .	5	8	Thimbls	—	2	4½	8	Thimbls.	—	2	4	7	Thimbls.	—	2	3½	6	Thimbls.	—	2	—	—	—	—	—
Falls	3	58	* Double *Single	11 11	2 2	2¾	56	*Double *Single	10 10	2 2	2½	49	*Double *Single	9 9	2 2	2	43	*Double *Single	8 8	2 2	— —	— —	— —	— —	— —
Strapping	3½	4	—	—	—	3	4	—	—	—	3	3	—	—	—	2½	3	—	—	—	—	—	—	—	—
Shrouds cab. 4 Strands	7	80	D. Eyes	10	12	6½	75	D. Eyes	8	12	5½	65	D. Eyes	8	10	4½	44	D. Eyes	7	8	—	—	—	—	—

DIMENSIONS OF THE STANDING AND RUNNING RIGGING OF MERCHANT-SHIPPING.

Mizen - mast, and Yard or Gaff.	1257 Tons.					818 Tons.					544 Tons.					330 Tons.					Sloop of 60 Tons.				
	Size in	Fath in	Blocks, &c.			Size in	Fath in	Blocks, &c.			Size in	Fath in	Blocks, &c.			Size in	Fath in	Blocks, &c.			Size in	Fath in	Blocks, &c.		
	Inch	Len.	Species.	In	N	Inch	Len.	Species.	In	N	Inch	Len.	Species.	In	N	Inch	Len.	Species.	In	N	Inch	Len.	Species.	In	N
Seizings Eye	1	20	—	—	—	1	19	—	—	—	1	16	—	—	—	Tarred Line			—	—	—	—	—	—	—
Seizings Throat	1	40	—	—	—	1	38	—	—	—	¾	32	—	—	—				—	—	—	—	—	—	—
Seizings End	¾	30	—	—	—	¾	28	—	—	—	¾	24	—	—	—				—	—	—	—	—	—	—
Laniards	3½	40	—	—	—	3	38	—	—	—	2½	32	—	—	—	2½	22	—	—	—	—	—	—	—	—
Ratline	1	120	—	—	—	1	113	—	—	—	1	97	—	—	—	1	66	—	—	—	—	—	—	—	—
Stay 4 Strands cabled	8	14	Thimbls.	—	2	7¼	13	Thimbls.	—	2	6	11	Thimbls.	—	2	5	9	Thimbls.	—	2	—	—	—	—	—
Seizing	1	7	—	—	—	1	6	—	—	—	1	5	—	—	—	¾	4	—	—	—	—	—	—	—	—
Laniard	3½	6	—	—	—	3	6	—	—	—	2½	5	—	—	—	2½	4	—	—	—	—	—	—	—	—
Collar	7	3½	Thimble	—	1	6	3	Thimble	—	1	5	2¾	Thimble	—	1	4	2	Thimble	—	1	—	—	—	—	—
Seizing	1	3	—	—	—	1	3	—	—	—	1	2½	—	—	—	¾	2	—	—	—	—	—	—	—	—
Lashing	1½	3	—	—	—	1½	3	—	—	—	1½	2½	—	—	—	1	2	—	—	—	—	—	—	—	—
YARD OR GAFF.																									
Jeers	5	58	Treb. co.	18	1	4½	56	Treb. co.	16	1	4	32	Dou. co.	16	1	3	29	Dou. co.	12	1	—	—	—	—	—
			Dou. co.	18	1			Dou. co.	16	1			Sing. co.	16	1			Sing. co.	12	1	—	—	—	—	—
Strapping	5½	8	—	—	—	5	7	—	—	—	4	6	—	—	—	3	5	—	—	—	—	—	—	—	—
Seizing	1½	10	—	—	—	1½	9	—	—	—	1	8	—	—	—	¾	7	—	—	—	—	—	—	—	—
Lashing at the Mast Hd	2½	10	—	—	—	2½	9	—	—	—	2½	8	—	—	—	2	7	—	—	—	—	—	—	—	—
Lashing at the Yard	2	5	—	—	—	2	4½	—	—	—	1½	4	—	—	—	1	3½	—	—	—	—	—	—	—	—
Derrick	4	39	Double	14	1	3½	37	Double	12	1	3	32	Double	11	1	2½	29	Double	10	1	—	—	—	—	—
Span	4	4	Single	14	1	3½	4	Single	12	1	3	3	Single	11	1	2½	3	Single	9	1	—	—	—	—	—
Strapping	4	2½	Thimble	—	1	3½	2½	Thimble	—	1	3	2	Thimble	—	1	2½	2	Thimble	—	1	—	—	—	—	—
Seizing	1	9	—	—	—	1	9	—	—	—	¾	8	—	—	—	Tarred Line			—	—	—	—	—	—	—
Lashing	2	8	—	—	—	2	8	—	—	—	1½	7	—	—	—	1	6	—	—	—	—	—	—	—	—
Vang-Pendents	4	11	Double	8	2	3½	10	Double	8	2	3	9	—	—	—	3	8	—	—	—	—	—	—	—	—
Falls	2	33	* Single	8	2	2	30	*Single	8	2	2	27	*Single	8	4	1½	24	* Single	7	4	—	—	—	—	—
Strapping	3	1	—	—	—	2½	1	—	—	—	2	1	—	—	—	1½	1	—	—	—	—	—	—	—	—

Bowlines	3	18	Single	10	4	2½	16	Single	9	4	2½	14	Single	7	4	—	—	—	—	—	—	—	—	—	—
Strapping	3	3	Thimbls.	—	2	2½	3	Thimbls.	—	2	2½	2	Thimbls.	—	2	—	—	—	—	—	—	—	—	—	—
Brail-Peek-Legs	2	12	—	—	—	2	11	—	—	—	1½	10	—	—	—	1½	8	—	—	—	—	—	—	—	—
Falls	2	18	Single	7	6	2	17	Single	7	6	1½	16	Single	6	4	1½	12	Single	6	4	—	—	—	—	—
Throat	3	24	Single	10	2	3	22	Single	9	2	2½	20	Single	8	2	2	17	Single	7	2	—	—	—	—	—
Middle	2½	19	Single	9	2	2½	18	Single	8	2	2	16	Single	7	2	1½	14	Single	6	2	—	—	—	—	—
Foot	2½	32	Single	9	2	2½	30	Single	8	2	2	28	Single	7	2	1½	23	Single	6	2	—	—	—	—	—
Strapping	3 2½	4 3	Thimble	—	4	3 2½	4 3	Thimbls	—	4	2½	6	Thimbls.	—	4	2	5	Thimbls.	—	4	—	—	—	—	—
Lacing Mizen to Yard	1½	19	—	—	—	1½	18	—	—	—	1½	16	—	—	—	¾	14	—	—	—	—	—	—	—	—
Lacing Mizen to Mast	3	26	—	—	—	2	25	—	—	—	2	23	—	—	—	2	21	—	—	—	—	—	—	—	—
Ear-Rings	2	10	—	—	—	1½	10	—	—	—	1½	9	—	—	—	1	8	—	—	—	—	—	—	—	—
Peek-Haliards	2	19	*Single	7	1	1½	18	*Single	6	1	1½	16	*Single	6	1	1	14	*Single	5	1	—	—	—	—	—
Sheet	4	26	*Double Single	14 14	1 1	3½	25	*Doubl Single	12 12	1 1	3	21	*Double *Single	10 10	1 1	2½	19	*Single	9	2	—	—	—	—	—
Strapping	4	3½	—	—	—	3½	3	—	—	—	3	2½	—	—	—	2½	2	—	—	—	—	—	—	—	—
Seizing	1	7	—	—	—	1	6	—	—	—	1	5	—	—	—	Tarred Line			—	—	—	—	—	—	—
Tack	3	5	—	—	—	2½	5	—	—	—	2	4	—	—	—	1½	3	—	—	—	—	—	—	—	—
Slings	5½	6	—	—	—	5	6	—	—	—	4	5	—	—	—	3	4	—	—	—	—	—	—	—	—
Staysail-Stay	5	13	Thimbls.	—	2	4½	12	Thimbls.	—	2	4	11	Thimbls.	—	2	3	9	Thimbls.	—	2	—	—	—	—	—
Collar	4½	4	Thimble	—	1	4	3½	Thimble	—	1	3½	2½	Thimble	—	1	2½	2	Thimble	—	1	—	—	—	—	—
Seizing	1	4	—	—	—	¾	3½	—	—	—	¾	2½	—	—	—	Tarred Line			—	—	—	—	—	—	—
Lashing	1	4	—	—	—	1	3½	—	—	—	¾	2½	—	—	—	¾	2	—	—	—	—	—	—	—	—
Laniard	2	8	—	—	—	2	7	—	—	—	1½	5	—	—	—	1	4	—	—	—	—	—	—	—	—
Haliard	3	26	Single	11	3	2½	24	Single	9	3	2	22	Single	8	3	2	18	Single	7	3	—	—	—	—	—
Sheets	3½	13	Single	11	2	3	12	Single	9	2	2½	11	Single	8	2	2	9	Single	7	2	—	—	—	—	—
Tack	2½	4	—	—	—	2½	4	—	—	—	2½	3	—	—	—	2	2	—	—	—	—	—	—	—	—
Down-Hauler	2	13	Single	7	2	2	12	Single	7	2	1½	11	Single	6	2	1	9	Single	5	1	—	—	—	—	—
Strapping	3½ 2½	3 2	—	—	—	2½	5	—	—	—	2	4	—	—	—	2	4	—	—	—	—	—	—	—	—
Brails	2	11	Single	7	2	2	10	Single	7	2	2	9	Single	7	2	1½	7	Single	6	2	—	—	—	—	—

DIMENSIONS OF THE STANDING AND RUNNING RIGGING OF MERCHANT-SHIPPING.

Boom-driver, Cross-Jack-yard, and Mizen-top-mast.	1257 Tons.					818 Tons.					544 Tons.					330 Tons.					Sloop of 60 Tons.				
	Size in Inch	Fath in Len.	Blocks, &c. Species.	In	N	Size in Inch	Fath in Len.	Blocks, &c. Species.	In	N	Size in Inch	Fath in Len.	Blocks, &c. Species.	In	N	Size in Inch	Fath in Len.	Blocks, &c. Species.	In	N	Size in Inch	Fath in Len.	Blocks, &c. Species.	In	N
BOOM-DRIVER.																					or,	MAI	N-SAIL.		
Topping-LiftsorRunnr.	5	34	——	—	—	4½	29	——	—	—	4	27	——	—	—	3	21	——	—	—	4	30	*S.I.b.d.	10	1
Span	5	6	Double	15	1	4½	6	Double	15	1	4	5	Double	13	1	3	4	Double	11	1	—	—	Single Single	10 8	1 1
Fall	3	46	Double *Single	10 10	2 2	3	40	Double *Single	10 10	2 2	2½	37	Double *Single	9 9	2 2	2	23	Double *Single	8 8	2 2	2	20	Double *Single	8 8	1 1
Strapping . . .	3	5	——	—	—	3	5	——	—	—	2½	4½	——	—	—	2	4	——	—	—	4	4	Gaff-Spa	n.	
Guy-Pendents. . .	3½	12	H. & T.	—	4	3½	11	H. & T.	—	4	3	10	——	—	—	2½	9	——	—	—	4	6	——	—	—
Falls	2½	60	*Double *Single	9 9	2 2	2½	58	*Double *Single	9 9	2 2	2	54	*Double *Single	8 8	2 2	2	50	*Double *Single	7 7	2 2	2	20	*Double *Single	8 8	1 1
Boom-Horses . . .	3½	14	——	—	—	3½	12	——	—	—	3	11	——	—	—	2½	10	——	—	—	2	8	——	—	—
Sheet	3	26	Single	10	2	3	25	Single	10	2	2½	26	Single	9	2	2	22	Single	8	2	2	16	Single	8	2
Sheet-Pendent . .	3½	14	——	—	—	3½	12	——	—	—	3½	11	——	—	—	3	10	——	—	—	2½	7	——	—	—
Falls	2	20	*Double *Single	8 8	1 1	2	20	*Double *Single	8 8	1 1	2	18	*Double *Single	8 8	1 1	2	16	*Double *Single	7 7	1 1	2	14	*Double *Single	6 6	1 1
Hald.or Brails { InnerTie Haliard	2½	108	Single	9	6	2½	100	Single	9	6	2	95	Single	8	6	2	90	Single	7	6	3½ 2	9 20	S·I.bd.co *D.th.co	13 17	1 2
Lac. to Yard { OuterTie Haliard	1½	30	——	—	—	1½	28	——	—	—	1½	26	——	—	—	1	24	——	—	—	3½ 2	10 26	S.I.bd co *D.th.co	13 17	1 2
Tack-Tackle . .	2	12	*Double *Single	12 12	1 1	2	12	*Double *Single	12 12	1 1	2	10	*Double *Single	10 10	1 1	1½	9	*Double *Single	8 8	1 1	—	—	——	—	—
Down-Haulers { Peek. Throat	2½	19	——	—	—	2½	18	——	—	—	2	16	——	—	—	1½	14	——	—	—	1½ 1½	14 20	Single Single	6 6	2 1
Lashing	¾	8	——	—	—	¾	8	——	—	—	¾	7	——	—	—	¾	6	——	—	—	—	—	——	—	—
Ear-Rings { Inner . Outer .	—	—	——	—	—	—	—	——	—	—	—	—	——	—	—	—	—	——	—	—	1 ¾	3 5	——	—	—

Reef	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	6	—	—	—
CROSS-JACK YARD.																									
Truss-Pendents . .	4	6	Thimbls.	—	2	3½	6	Thimbls.	—	2	3	5	Thimbls.	—	2	2¾	4	Thimbls.	—	2	—	—	—	—	—
Falls	2½	19	*L. t. *Single	18 9	1 1	2½	18	*L. t. *Single	18 9	1 1	2	15	*L. t. *Single	16 8	1 1	2	12	*L. t. *Single	14 7	1 1	— —	— —	— —	— —	— —
Strapping . . .	3	3	—	—	—	2½	2	—	—	—	2	2	—	—	—	2	2	—	—	—	—	—	—	—	—
Seizing	¾	8	—	—	—	¾	8	—	—	—	¾	7	—	—	—	Tarred Line			—	—	—	—	—	—	—
Span about the Cap .	4	2	—	—	—	3½	2	—	—	—	3	2	—	—	—	2	1½	—	—	—	—	—	—	—	—
Braces and Strapping .	2½	60	Single	9	2	2½	54	Single	9	2	2	49	Single	8	2	1½	38	Single	6	2	1½	20	—	—	—
Lifts running, & Strap.	2½	50	Single	9	4	2½	45	Single	9	4	2	42	Single	8	4	1½	32	Single	6	4	1½	18	Single	6	4
Slings	4½	5½	S. do. sc.	14	1	4½	5	S. do. sc.	14	1	3½	4½	S. do. sc.	12	1	3	3½	Thimble	—	1	—	—	—	—	—
Strapping . . .	4	2	—	—	—	3½	2	—	—	—	3	2	—	—	—	2½	1½	—	—	—	—	—	—	—	—
Seizing	1	3	—	—	—	¾	3	—	—	—	¾	3	—	—	—	Tarred Line			—	—	—	—	—	—	—
Lashing	1½	5	—	—	—	1	5	—	—	—	1	4	—	—	—				—	—	—	—	—	—	—
MIZEN TOP-MAST.																									
Shrouds cabled 4 Strands	5	47	D. Eyes	8	8	4¾	42	D. Eyes	8	8	4	30	D. Eyes	7	6	3	28	D. Eyes	6	6	—	—	—	—	—
Seizings	¾	70	—	—	—	¾	63	—	—	—	Tarred Line			—	—	—	—	—	—	—	—	—	—	—	—
Laniards	2½	31	—	—	—	2½	28	—	—	—	2	20	—	—	—	1½	19	—	—	—	—	—	—	—	—
Ratline	1	59	—	—	—	1	52	—	—	—	1	37	—	—	—	¾	35	—	—	—	—	—	—	—	—
Backstays	5	80	D. Eyes	8	6	4¾	70	D. Eyes	8	6	4	40	D. Eyes	7	4	3	37	D. Eyes	5	4	—	—	—	—	—
Seizings	Tarred Line			—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Laniard	2½	20	—	—	—	2½	20	—	—	—	2	12	—	—	—	1½	12	—	—	—	—	—	—	—	—
Stay cabled 4 Strands	5	12	—	—	—	4¾	10	—	—	—	4	9	—	—	—	3½	8	—	—	—	—	—	—	—	—
Laniard	2½	6	Thimbls.	—	2	2½	5	Thimbls.	—	2	2	4½	Thimbls.	—	2	1½	4	Thimbls.	—	2	—	—	—	—	—
Collar	4	3	Single	14	1	3½	3	Single	13	1	3	2½	Single	11	1	2¼	2	Thimbls.	—	1	—	—	—	—	—
Seizing & Lashing .	1	6	—	—	—	1	6	—	—	—	¼	5	—	—	—	Tarred Line			—	—	—	—	—	—	—
Flagstaff Stay . . .	2	12	Thimble	—	1	2	10	Thimble	—	1	1½	9	Thimble	—	1	—	—	—	—	—	—	—	—	—	—
Haliards	1½	20	—	—	—	1½	18	—	—	—	1	15	—	—	—	¾	14	—	—	—	—	—	—	—	—
Futtock-Shrouds . .	4½	14	*Pl. d. e.	8	8	4	12	Pl. d. e.	8	8	3½	9	Pl. d. e.	7	6	2½	8	Pl. d. e.	6	6	—	—	—	—	—
Seizings	Tarred Line			—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ratlines	1	15	—	—	—	1	13	—	—	—	1	10	—	—	—	¾	9	—	—	—	—	—	—	—	—
Top-Rope Pendents .	5½	15	*S. I. bd.	14	1	5	13½	*S.I.bd.	14	1	4½	11	*S.I.bd.	12	1	4	10	S.I.bd.	12	1	—	—	—	—	—
Falls	3	37	D.I.bd.	12	2	3	32	D.I.bd.	12	2	2½	27	D.I.bd.	10	2	2½	25	D.I.bd.	10	2	—	—	—	—	—

DIMENSIONS OF THE STANDING AND RUNNING RIGGING OF MERCHANT-SHIPPING.

Mizen-top-sail yard.	1257 Tons.					818 Tons.					544 Tons.					330 Tons.					Sloop of 60 Tons.				
	Size in Inch	Fath in Len.	Blocks, &c. Species.	In	N	Size in Inch	Fath in Len.	Blocks, &c. Species.	In	N	Size in Inch	Fath in Len.	Blocks, &c. Species.	In	N	Size in Inch	Fath in Len.	Blocks, &c. Species.	In	N	Size in Inch	Fath in Len.	Blocks, &c. Species.	In	N
MIZEN-TOPSAIL YARD																									
Tie	4	13	S. do. sc.	13	1	4	19	S. do. sc.	13	1	3½	10	S. do. sc.	12	1	3	9	S. do. sc.	10	1	—	—	—	—	—
Haliard	2½	40	D. th.co. *S.th.co.	12 12	1 1	2½	36	D. th. co. *S.th.co.	12 12	1 1	2	39	D. th.co. *S.th.co.	10 10	1 1	2	28	*S.th.co.	8	2	—	—	—	—	—
Strapping	3½	4	—	—	—	3½	4	—	—	—	3	4	—	—	—	2½	2	—	—	—	—	—	—	—	—
Lashing	1	3	—	—	—	1	3	—	—	—	¾	3	—	—	—	Tarred Line			—	—	—	—	—	—	—
Horses	3	8	—	—	—	3	7	—	—	—	2½	6	—	—	—	2	5½	—	—	—	—	—	—	—	—
Stirrups	2½	4	Thimbls.	—	2	2½	3½	Thimbls.	—	2	2	3	Thimbls.	—	2	—	—	—	—	—	—	—	—	—	—
Braces and Strapping	2½	48	Single	9	2	2½	44	Single	9	2	2	39	Single	7	2	1½	37	Single	5	2	—	—	—	—	—
Lifts	2½	50	Double Single	9 9	2 2	2½	45	Double Single	9 9	2 2	2	40	Single	7	4	2	38	Thimbls.	—	2	—	—	—	—	—
Strapping	3	3	—	—	—	3	3	—	—	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—
Parral-Ropes	2½	5	Parral	14	1	2½	4½	Parral	14	1	2	3½	Parral	11	1	1½	3	Parral	9	1	—	—	—	—	—
Clue-lines & Strapp.	2½	58	S. st. bo. Single	9 9	4 2	2½	52	S. st. bo. Single	9 9	4 2	2	45	S. st. bo. Single	7 7	4 2	1½	42	S. st. bo. Single	5 5	4 2	—	—	—	—	—
Bunt-lines & Strapping	2	41	Single	8	4	2	37	Single	8	4	1½	32	Single	7	2 2	1½	30	Single Thimble	6 —	1 1	—	—	—	—	—
Leech-lines & Strapping	2	16	Single	7	2	2	15	Single	7	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bowlines & Strapping	2	39	Single	8	2	2	35	Single	8	2	1½	30	Single	6	2	1½	28	Single	5	2	—	—	—	—	—
Bridles	2	8	Thimbls.	—	4	2	7	Thimbls.	—	4	1½	6	Thimbls.	—	4	1½	5½	Thimbls.	—	4	—	—	—	—	—
Reef Tackle Pendents	3	29	—	—	—	3	26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Falls	1½	35	Double Single	7 7	2 2	1½	31	Double Single	7 7	2 2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strapping	2	1	—	—	—	2	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ear-Rings	1½	34	—	—	—	1½	30	—	—	—	1	26	—	—	—	¾	24	—	—	—	—	—	—	—	—
Sheets	4½	34	S. Sho. Single	14 14	2 1	4½	30	S. Sho. Single	13 13	2 1	3½	26	S. Sho. Single	12 12	2 1	3	24	S. Sho. Single	10 10	2 1	—	—	—	—	—

Strapping	5 4	2 3	—	—	—	5 4	2 3	—	—	—	4 3	2 3	—	—	—	3	4	—	—	—	—	—	—	—	—
Seizings	¾	14	—	—	—	¾	14	—	—	—	Tarr	ed L	ine.	—	—	—	—	—	—	—	—	—	—	—	—
Lashing	1½	5	—	—	—	1½	5	—	—	—	1	4	—	—	—	¾	3	—	—	—	—	—	—	—	—
Staysail-Haliards	2½	24	Single	8	1	2	21	Single	8	1	1½	18	Single	7	1	1½	16	Single	6	1	—	—	—	—	—
Sheets	2½	26	Single	8	2	2	23	Single	8	2	1½	20	Single	7	2	1½	18	Single	6	2	—	—	—	—	—
Tacks	2	2	—	—	—	2	2	—	—	—	2	2	—	—	—	1½	2	—	—	—	—	—	—	—	—
Downhaulers	1½	17	Single	6	1	1½	15	Single	6	1	1	12	Single	6	1	1	10	Single	5	1	—	—	—	—	—
Strapping	2	2	—	—	—	2	2	—	—	—	1½	1½	—	—	—	1½	1	—	—	—	—	—	—	—	—
MIZEN-TOPGAL.-MAST.																									
Shrouds 4 Strds. cabled	3¼	40	Thimbls.	—	6	3	36	Thimble	—	6	2½	30	Thimbls.	—	6	1½	20	Thimbls.	—	4	—	—	—	—	—
Laniards	2	13	—	—	—	2	12	—	—	—	1½	10	—	—	—	¾	7	—	—	—	—	—	—	—	—
Backstays 4 Strds. cab.	3¼	40	Thimbls.	—	4	3	36	Thimbls.	—	4	2½	30	Thimbls.	—	4	1½	20	Thimbls.	—	2	—	—	—	—	—
Laniards	2	6	—	—	—	2	6	—	—	—	1½	5	—	—	—	¾	4	—	—	—	—	—	—	—	—
Stay	3½	15	Thimbls.	—	1	3½	14	Thimble	—	1	3	13	Thimble	—	1	2	11	Thimble	—	1	—	—	—	—	—
Laniard	2	4	—	—	—	2	4	—	—	—	1½	3	—	—	—	1	2	—	—	—	—	—	—	—	—
MIZEN-TOPGAL.-YARD.																									
Tie	2½	7	Single	7	1	2½	6½	Single	7	1	2	6	Single	6	1	1¾	5	Single	6	1	—	—	—	—	—
Haliard	2	28	Single	6	2	2	26	Single	6	2	1½	24	Single	5	2	1	20	Single	5	2	—	—	—	—	—
Horses	2	5	Thimbls	—	2	2	4½	Thimbls.	—	2	2	4	Thimbls.	—	2	—	—	—	—	—	—	—	—	—	—
Braces	1½	52	Single	5	2	1½	46	Single	5	2	1½	44	Single	5	2	1	32	Single	5	2	—	—	—	—	—
Lifts, single	2	26	Thimbls.	—	2	2	26	Thimbls.	—	2	2	22	Thimbls.	—	2	2	16	Thimbls.	—	2	—	—	—	—	—
Parral-Ropes	1½	4	Parral	6	1	1½	3½	Parral	6	1	1	3	Parral	6	1	1	2½	Parral	5	1	—	—	—	—	—
Clue-Lines	1½	57	Single	5	2	1½	50	Single	5	2	1	48	Single	5	2	1	36	Single	4	2	—	—	—	—	—
Bow-Lines	1½	55	Thimble	—	4	1½	48	Thimbls.	—	4	1	46	Thimbls.	—	4	1	34	Thimbls.	—	4	—	—	—	—	—
Bridles	1½	3	—	—	—	1½	3	—	—	—	1	3	—	—	—	1	2	—	—	—	—	—	—	—	—
Ear-Rings	Tarr	ed Li	ne	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strapping	1½	3	—	—	—	1½	3	—	—	—	1	2½	—	—	—	1	2	—	—	—	—	—	—	—	—
NECESSARY ROPES.																									
Cat-Falls	5	96	Tr. I. bo. Br. sh.	22	2	5	80	Tr. I. bo. Br. sh.	20	2	4	66	Tr. I. bo. Br. sh.	18	2	3	58	D.I.bo.c.	15	2	—	—	—	—	—
Fish-Tackle Pendents	18	12	*S. co.	20	1	7	10	*S. co.	20	1	6	9	*S. co.	18	1	5	8	*S. co.	15	1	—	—	—	—	—
Falls	4	40	L. t.	30	2	4	40	L. t.	30	2	3½	35	L. t.	28	2	3	30	L. t. Single	24 24	1 1	—	—	—	—	—

DIMENSIONS OF THE STANDING AND RUNNING RIGGING OF MERCHANT-SHIPPING.

Necessary ropes, &c.	1257 Tons.					818 Tons.					544 Tons.					330 Tons.					Sloop of 60 Tons.				
	Size in Inch	Fath in Len.	Blocks, &c.			Size in Inch	Fath in Len.	Blocks, &c.			Size in Inch	Fath in Len	Blocks, &c.			Size in Inch	Fath in Len.	Blocks, &c.			Size in Inch	Fath in Len.	Blocks, &c.		
			Species.	In	N			Species.	In	N			Species.	In	N			Species.	In	N			Species.	In	N
Strapping	6	6	—	—	—	6	6	—	—	—	4½	9	—	—	—	3½	7	—	—	—	—	—	—	—	—
	5	5				5	5																		
Seizing	1½	10	—	—	—	1½	10	—	—	—	1	10	—	—	—	¾	12	—	—	—	—	—	—	—	—
	1					1																			
Deck-Stoppers cabled	8½	36	Thimbls.	—	10	8	36	Thimbls.	—	10	8	30	Thimbls.	—	10	7	24	Thimbls.	—	8	—	—	—	—	—
Buoy-Ropes cabled	9	50	—	—	—	8¼	50	—	—	—	6	50	—	—	—	5	50	—	—	—	4	30	—	—	—
Masting Fall	6½	130	—	—	—	6	130	—	—	—	5	120	—	—	—	4½	108	—	—	—	—	—	—	—	—
Messengers, two each	11½	45	—	—	—	10	40	—	—	—	9	36	—	—	—	7	34	—	—	—	—	—	—	—	—
Hawsers, one of each	6	120	—	—	—	6	120	—	—	—	5	120	—	—	—	5	120	—	—	—	4½	80	—	—	—
	7	120	—	—	—	7	120	—	—	—	7	120	—	—	—	7	120	—	—	—	5½	70	—	—	—
	10	120	—	—	—	9	120	—	—	—	9	120	—	—	—	9	120	—	—	—	—	—	—	—	—
Warp	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	120	—	—	—	2½	120	—	—	—
Stream Cable, one	16½	120	—	—	—	15	120	—	—	—	14	120	—	—	—	—	—	—	—	—	—	—	—	—	—
Cables	20	120	Six each	—	—	18	120	Six each	—	—	15	120	Four each		—	13½	120	Two each		—	9	90	Two each		—
PREPARING THE RIGGING IN THE HOUSE.																									
Of 12 Thread Ratline	—	6	Coils	—	—	—	6	Coils	—	—	—	4	Coils	—	—	—	2	Coils	—	—	—	1	Coil	—	—
9 ditto	—	6	ditto	—	—	—	5	ditto	—	—	—	3	ditto	—	—	—	3	ditto	—	—	—	1	ditto	—	—
6 ditto	—	3	ditto	—	—	—	3	ditto	—	—	—	3	ditto	—	—	—	2	ditto	—	—	—	1	ditto	—	—
3 Strand Worming	—	5	ditto	—	—	—	5	ditto	—	—	—	4	ditto	—	—	—	3	ditto	—	—	—	1	ditto	—	—
2 ditto	—	5	ditto	—	—	—	5	ditto	—	—	—	4	ditto	—	—	—	3	ditto	—	—	—	1	ditto	—	—
House and Marline	—	6	Dozen	—	—	—	6	Dozen	—	—	—	5	Dozen	—	—	—	4	Dozen	—	—	—	2	Dozen	—	—
Spunyarn + Yarn	—	6	Coils	—	—	—	5	Coils	—	—	—	4	Coils	—	—	—	4	Coils	—	—	—	2	Coils	—	—
Twine	—	6	Seams	—	—	—	6	Seams	—	—	—	5	Seams	—	—	—	4	Seams	—	—	—	1½	Seams	—	—
Barrels of Tar	—	2	No.	—	—	—	1½	No.	—	—	—	1	No.	—	—	—	¾	No.	—	—	—	½	No.	—	—
Tallow	—	28	Pounds	—	—	—	28	Pounds	—	—	—	24	Pounds	—	—	—	15	Pounds	—	—	—	9	Pounds	—	—
Worn Canvas	—	120	Yards	—	—	—	110	Yards	—	—	—	100	Yards	—	—	—	90	Yards	—	—	—	60	Yards	—	—

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